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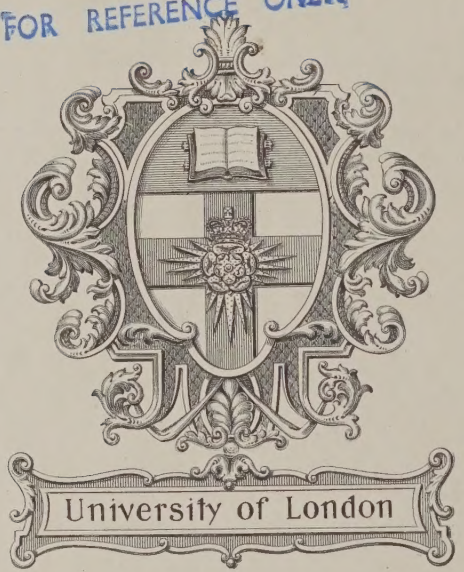

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ACCOUNTS AND PAPERS:

THIRTY-EIGHT VOLUMES.

—*(26.)*—

SHIPPING; HARBOURS; PILOTAGE, &c.

Session

6 *February* —— 7 *August* 1862.

VOL. LIV.

1862.

ACCOUNTS AND PAPERS:

1862.

THIRTY-EIGHT VOLUMES:—CONTENTS OF THE

TWENTY-SIXTH VOLUME.

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HER MAJESTY'S CONSULS

ON

SHIPPING.

Presented to both Houses of Parliament by Command of Her Majesty.
1862.

LONDON:
PRINTED BY HARRISON AND SONS.

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Circular addressed to Her Majesty's Consuls at Foreign Ports.

Sir, *Foreign Office, August* 27, 1860.

I AM directed by Lord J. Russell to transmit to you three copies of a paper containing queries on points connected with shipping; and I am to instruct you to return to his Lordship two copies of that paper, with your answers written opposite to the queries.

I am, &c.

(Signed) JAMES MURRAY.

List of Queries.

1. WHETHER in any case British ships are prohibited from bringing or taking cargo or passengers at the port of your residence from or to any part of the world; and if so, what part?

2. Whether differential shipping-dues of any description, Imperial or Local, are levied on national, foreign, or British ships, arriving or departing; and if so, what are the nature of such dues, and the amounts levied, on national, foreign, or on British ships respectively, distinguishing those in ballast from those carrying cargo or passengers?

3. Whether there are any variations in such dues dependent on the ships arriving from or clearing out for the United Kingdom or its Colonies, or to or from foreign countries or their Colonies; and if so, what are those variations; what are the circumstances under which they exist; and what is their amount?

4. Whether drawbacks or repayments of any such differential dues are made, under any circumstances, to national, foreign, or British vessels; and if so, specify nature and amount.

5. Whether there are any regulations specially affecting British ships, cargoes, crews, or passengers, entailing upon such ships when in port, extra charge or expense, not equally borne by national or foreign vessels?

6. Give a short analysis of any local laws and regulations of the port affecting seamen, and state the average rate of wages.

Answers returned by Her Majesty's Consuls to the foregoing Queries.

Argentine Republic.

BUENOS AYRES.

1. No prohibition of this nature exists at the port of Buenos Ayres.

2. No differential shipping dues of any description are levied on British vessels trading to and from the port of Buenos Ayres.

3. No distinction is made in favour of any foreign vessels.

4. No charges or dues being levied, no drawbacks exist.

5. The port regulations in force made no distinction between foreign and native vessels, and no port charges of any kind are levied.

6. Seamen not belonging to foreign vessels are subject to the usual police regulations. Those serving on board are subject to the laws of the country to which the ship belongs, and the Government of Buenos Ayres have distinctly admitted the right of the foreign Consuls to decide all disputes between seamen and masters of vessels, breaches of discipline, and misdemeanours committed on board; and the local authorities give every assistance for the apprehension and imprisonment of foreign sailors at the request of their respective Consuls. There is a large number of foreign seamen at Buenos Ayres, and the ordinary rate of wages of the port is 3*l.* per month

(Signed) FRANK PARISH.

Austria.

VENICE.

1. No prohibition except in the coasting trade.

2. French and Spanish ships pay 1 florin and 5 soldi, or 2*s.* $1\frac{20}{100}$*d.* per ton.

Tonnage Duty.—All other foreign ships the same as Austrian, viz :—

		per Ton. *s.*	*d.*
Up to 50 tons, $3\frac{1}{2}$ soldi	or	0	$0\frac{84}{100}$
From 51 to 100, 7 soldi	„	0	$1\frac{58}{100}$
From 101 and upwards, $10\frac{1}{2}$ soldi	„	0	$2\frac{52}{100}$

Light Dues.—14 soldi, or $3\frac{36}{100}$*d.* per ton indistinctly by all foreign and Austrian ships.

Sanitary Dues.—French and Spanish ships with cargo from without the Gulf of Venice :—

12 florins $35\frac{1}{2}$ soldi	or	24	$8\frac{52}{100}$
By other foreign ships, and Austrian, 9 florins 6 soldi	„	18	$1\frac{44}{100}$
French and Spanish ships in ballast :—			
6 florins $17\frac{1}{2}$ soldi	„	12	$4\frac{26}{100}$
By other foreign ships, and Austrian, 4 florins 53 soldi	„	9	$0\frac{72}{100}$
Clearance outwards paid equally by all foreign and Austrian ships.			
For out of the Gulf, $80\frac{1}{2}$ soldi	„	1	$7\frac{32}{100}$
For out of the State, but within the Gulf, $40\frac{1}{2}$ soldi	„	0	$9\frac{32}{100}$
For another Austrian port, $10\frac{1}{2}$ soldi	„	0	$2\frac{52}{100}$

3. No difference between foreign and Austrian, with the exception of sanitary dues, which vary according to place whence vessel arrives and nature of cargo as above.

4. None.

5. None.

6. The only local regulation of the port affecting seamen, is the prohibition to be on shore from evening to morning gun-fire, unless provided with a written permission by the Master of the vessel to which such seamen belong, endorsed by Captain of the Port.

The average pay of able seamen shipped on board Austrian vessels varies from 14 to 18 florins, or 28*s.* to 36*s.*, per month for voyages within the Mediterranean, and from 2 to 4 florins, or 4*s.* to 8*s.*, more for ports in the Ocean.

Officers and cabin boys in due proportion.

(Signed) WILLIAM PERRY.

British Consulate-General, Venice, September , 1860.

Belgium.

ANTWERP.

1. The British flag is assimilated in all respects to the Belgian flag, with the sole exception that rock salt can only be imported in Belgian vessels of at least 50 tons; nevertheless, English and French ships may import raw salt from French ports, and Sardinian vessels salt loaded in a Sardinian port; in those cases salt is free of duty; otherwise, it pays 1 franc 40 centimes per 100 kilogrammes, which is equivalent to a prohibition.

2. British vessels are placed by Treaty on the same footing as national vessels, and they are subjected to no differential shipping-dues whatever.

3. There are none.

4. This occurs in one case only, viz., when coals are exported in a Belgian vessel the ship is entitled to a return of the tonnage-dues.

5. There are none.

6. The crews of all merchant-ships lying in the port, as well ashore as on board, are subject to the special jurisdiction of the Inspector of Maritime Police. A list of the crews of all vessels, especially the port of Antwerp, must be furnished to that officer; and all changes in the crews occurring during the stay of the vessel must be reported to him. If necessary for the maintenance of discipline, or for the prevention of desertion, shipmasters are empowered to have their seamen secured through the intervention of the Maritime Police; and should a serious disturbance break out on board, the aid of the Inspector may be called in.

The average rate of wages for able seamen at this port is about 2*l.* per month, and for ordinary seamen from 1*l.* 8*s.* to 1*l.* 12*s.*

Antwerp, October 20, 1860.

OSTEND.

1. No.

2. There are no differential shipping-dues of any description levied on the ships of those nations that are assimilated to national ships by Treaty.

British ships are assimilated to national ships. On foreign ships not assimilated there are levied—

Pilotage-dues, one-fourth more than on national.

Tonnage-dues:—National ships pay 2 francs 20 centimes per ton once a-year. Foreign, not assimilated, 2 francs 58 centimes per ton every voyage. No distinction for vessels in ballast except declared *en relache*, when they pay none.

3. No.

4. No.

5. No.

6. Seamen are exempt from being called on to serve in the military service when they shall have made a *voyage de long cours;* and fishermen for eight years, or so long as they act as fishermen. Seamen serving under the Belgian flag, on paying 2 per cent. of their wages to a Caisse de Prévoyance, are entitled to a pension according to the rules of the Caisse. They lose their right on navigating under a foreign flag. Seamen embarking under a foreign flag, with the consent of the Commissaire Maritime, can demand a "cautionnement" of 300 francs towards the payment of any expenses that may be incurred for their return to their country.

Wages are 55 francs per month for seamen, 80 to 90 francs for mates, and 125 francs for masters, and $2\frac{1}{2}$ per cent. on the freight.

(Signed) ED. T. CURRY, *Her Majesty's Consul.*

Ostend, September 19, 1860.

Bight of Benin. (Lagos.)

1. There is no prohibition.
2. No shipping-dues of any description are levied.
3. None.
4. None.
5. There are no special regulations.
6. There are no local laws or regulations affecting seamen. When vessels are short-handed they generally employ natives from 2*l.* to 2*l.* 10*s.* per month.

Lagos, December 10, 1860.

Bight of Biafra. (Fernando Po.)

1. No prohibition.
2. None.
3. None.
4. None.
5. None.
6. No local laws or regulations affecting seamen. Average rate of wages 2*l.* 10*s.* per month.

(Signed) JNO. LAUGHLAND, *Acting Consul.*

Fernando Po, November 1, 1860.

Borneo. (Brunei.)

1. No.
2. None.
3. None.
4. None.
5. None.
6. None; no seamen are engaged in Brunei.

Brunei, December 31, 1860.

Brazil.

RIO DE JANEIRO.

1. British ships are not prohibited from bringing or taking cargo at this port from or to any part of the world, except from one Brazilian port to another; the coasting trade being restricted to Brazilian vessels.

Foreign vessels bringing cargo to a port in Brazil on proceeding to another port in the Empire for the purpose of loading may, however, convey to such port certain articles by special permission, and under certain restrictions until the year 1863.

British and foreign vessels may bring or convey passengers from and to all parts of the world.

British and foreign vessels may take cargo to the port of Alberquerque, in the province of Mattogrosso, under permission from the Imperial Government, when no Brazilian vessels are destined for the trade of that port.

2. Anchorage dues are levied in this port on all vessels, whether national, foreign, or British, that are employed in the foreign trade, the established rate being 300 reis (about 8*d.*) per ton, but vessels arriving with cargo and departing in ballast, or *vice versâ*, are only charged half this tax.

Brazilian vessels employed in the coasting trade are exempt from anchorage dues.

Hospital dues are also charged on all shipping employed in foreign trade; but a reduction is made in favour of Brazilian vessels bound from one to another port within the province.

All ships, whether national or foreign, on being sold at this port pay a transfer duty of 5 per cent. on the amount of sale, except on foreign vessels sold for the purpose of assuming the Brazilian flag, in which case the duty is 15 per cent.

3. The dues at this port are levied indiscriminately on all vessels, whether arriving from or clearing out for the United Kingdom, its colonies, or to or from other foreign countries or their colonies.

4. None made.

5. No extra charge or expense is entailed upon British ships at Rio de Janeiro which is not equally borne by national or foreign vessels employed in foreign trade.

6. All matters connected with national seamen and crews of national vessels are conducted at the Captain of the Port's office, where all seamen employed in Brazilian vessels, whether trading abroad or employed in the coasting trade, are registered. The rate of wages in Brazilian vessels is from 25 to 30 milreis (about 2*l.* 16*s.* to 3*l.* 7*s.*) per month. The discharge and shipment of seamen belonging to foreign vessels are conducted at the respective Consulates without interference from the local authorities. The present rate of wages for seamen engaging at this port in foreign vessels is from 2*l.* 15*s.* to 3*l.* 5*s.*

(Signed) JNO. J. C. WESTWOOD.

Rio de Janeiro, October 26, 1860.

MARANHAM.

1. Any vessel, whether national, British, or foreign, can bring or take cargo or passengers without any restriction, from and to any part of the world; Cargo coastwise excepted, *i.e.*, from one Brazilian port to another, which is only allowable in national vessels.

2. All vessels, whether national, British, or foreign, trading from or departing to foreign countries pay alike the same Imperial harbour dues, which are appropriated for the support of lighthouses, buoys, &c., and are as follows, under the denomination of anchorage duties, viz., vessels landing a full or part of a cargo, and receiving also a full or part of an exported cargo, pay 300 reis a ton, Brazilian measurement, which is about 20 or 30 per cent. smaller than a British ton. If only landing cargo and departing in ballast, and *vice versâ*, they pay 150 reis ($3\frac{3}{4}d.$) per ton. If arriving and departing in ballast nothing is paid. A vessel making three different voyages from a foreign port within any twelve months from her first entry or report at any of the Brazilian custom-houses is free from harbour dues on the third voyage, provided she can prove her having paid those dues on the two previous voyages. National vessels in coasting trade pay no harbour dues. As Imperial or Government dues every vessel has to pay 150 reis ($3\frac{3}{4}d.$) stamp duty for each document presented on clearance at the custom-house, such as outward manifest, muster-roll, Consular clearance papers, &c., and 80 reis (2*d.*) for each bill of lading for outward cargo.

Local dues are as follows :—		£.	s.	d.
Government pass or clearance outwards for British or foreign vessel, 8$800	about	0	18	0
National vessels to foreign ports, 4$400 ..	„	0	9	0
„ coastwise, 2$200 ..	„	0	4	6
Bill of health when required, 3$000 ..	„	0	6	0
Rate of pilotage inwards is :—				
For vessel that has entered through Bay of São José and round the island by Mosquito River to an anchorage off this port, 240$000	„	24	0	0
Every movement from old to fresh anchorage, 8$000	„	0	16	0
Pilotage outwards, as far as Itapacuma :—				
Two-masted vessels, 40$000	„	4	0	0
Three-masted ditto, 46$400	„	4	13	0

As far as the bar only, half pilotage.

Pilots rendering assistance to vessels in distress or on shore may receive from 60$000 to 240$000 (from 6*l.* to 24*l.*) according to distance.

3. None ; all pay the same.

4. None.

5. None ; all treated alike.

6. There are none ; seamen's wages engaged here by national, British, or foreign vessels are regulated by the general agreement made with the remaining crew of such vessels by month or the run. National vessels coastwise pay about 20 or 25 milreis per month (2*l.* to 2*l.* 10*s.*)

Maranham, October 16, 1860.

PERNAMBUCO.

1. The only exception to the absolute liberty of commerce is the limitation of the privilege of foreign vessels to engage in the coasting trade ; the extent of that limitation is contained in the Imperial Decree of the 28th September, 1859.

2. The only differential due is the anchorage, national vessels being entirely exempted. Foreign vessels entering and clearing with cargo pay 300 reis, about 7½*d.*, a Brazilian ton. If they enter with cargo and sail in ballast, or *vice versâ*, 150 reis. If they enter and clear in ballast they pay no anchorage due, nor do vessels entering for provisions or in distress. Should they make more than two voyages in the year they are exempt from anchorage dues on the third.

3. Not any.

4. Not any.

5. Not any.

6. The laws especially affecting seamen place all seafaring men under the control and authority of the Captain of the Port, at whose office they are obliged to register their names and addresses, and they are not allowed to enter a foreign service without his permission ; they are all liable to recruitment or impressment for the navy, with certain exceptions, such as the only sons of widows, married men with families, &c.

The average rate of wages may be stated at 3*l.* a-month for an A.B.

(Signed) H. AUGUSTUS COWPER, *Consul.*

British Consulate, Pernambuco, October 13, 1860.

PARAIBA.

1. Out of the empire, no ; within the empire, British or foreign vessels are allowed to carry passengers and some kinds of cargo, as coals, flour, and codfish.

2. Yes. Anchorage dues of 300 reis, or 9*d.* per ton, Brazilian measurement, are levied on all national, foreign, or British ships trading to and from foreign ports. Vessels entering in ballast and loading cargo pay 150 reis, and

vice versâ; also an abatement, not exceeding 60 milreis, is allowed to vessels bringing emigrants, the amount being fixed according to number of them.

3. Not any.

4. National, foreign, or British vessels trading with foreign ports entering any port of the Empire three or more times within the same year pay anchorage dues for the first two voyages only.

5. Not any.

6. No foreigner can enter the Brazilian service without a certificate from his respective Consul that he is free so to do, nor can a Brazilian ship on board a foreign vessel without a certificate to same effect from the Captain of the Port. It is only under extraordinary circumstances, arising from great mortality amongst crews by yellow fever or cholera, that British shipmasters accept foreign seamen, and in these cases the wages are according to mutual agreement, averaging from 4*l.* to 5*l.* per month for A.B.

(Signed) ROBERT J. SHALDERS,
British Vice-Consul.

British Vice-Consulate,
Paraiba, October 9, 1860.

MACEIO.

1. British vessels, or those of any other nation, are in no cases prohibited from bringing or taking passengers at this port from or to any part of the world.

2. The only differential shipping-due of any description, either Imperial or Local (general or provincial), levied at this port upon foreign vessels, British included, is, one per mille more upon the amount of their outward freight than upon the outward freight of national vessels; the due levied upon the amount of the outward freight of foreign vessels, British included, being two per mille, and upon national vessels only one per mille. The Imperial and Local dues levied upon national and foreign vessels, British included, are, in all other respects, without distinction, the same.

3. No difference is made in the above specified differential shipping-due dependent on the ships arriving from, or clearing out for, the United Kingdom or its Colonies, or to or from any part of the world.

4. No drawbacks or special repayments are made of the referred to differential due of one per mille; but foreign vessels, British inclnded, arriving three or more times at this port during the course of one and the same year, only pay General and Provincial (Imperial and Local) dues twice during the same year. Upon lawful evidence being produced, the shipping-dues of the third clearance of the same vessel during the same year are repealed.

5. None.

6. There are no particular local laws or regulations of this port respecting seamen. Owing to the scarcity of shipping and the want of seamen, the average rate of a seaman's wages may be stated at about 40 milreis, or 4*l.* sterling per month.

(Signed) H. EDWIN GRIESBACH, *Vice-Consul.*

Maceio, October , 1860.

BAHIA.

1. No; none whatever.

2. No differential shipping-dues, either Imperial or Local, are levied. All flags are placed on the same footing with the national. Vessels arriving with cargo, and leaving in ballast, pay 150 reis per ton anchorage. *Vice versâ* the same.

Arriving and departing with cargo, 300 reis per ton.

Arriving in port in distress, nothing.

3. None whatever.

4. None.

5. None; the regulations apply as much to the national as to the foreign

shipping, their passengers and crews, and all bear the same port charges, according to their tonnage.

6. Every flag is allowed to put their own regulations and police laws into execution, and are assisted in enforcing them by the authorities; but no local laws exist specifically aimed at foreign seamen. Foreign seamen, however, are not allowed to ship in Brazilian ships without the sanction of their respective Consuls; neither can a Brazilian seaman ship in a foreign vessel without the permission of the Captain of the Port, and giving security that the men shall not be allowed to become destitute abroad, and that they shall be sent back to some port in Brazil at the vessel's expense, if they cannot find employment elsewhere.

The wages of an able seaman (Brazilian) averages about 30 milreis per month, or 3*l.* 7*s.* 6*d.*

(Signed) JOHN MORGAN, Jun.,
Her Britannic Majesty's Consul.

British Consulate, Bahia, October 5, 1860.

RIO GRANDE DO NORTE.

1. British ships are not prohibited from bringing or taking cargo from or to national ports, passengers and victuals excepted.

2. Shipping-dues are equally levied on national, foreign, and British ships. The Imperial dues are anchorage, 300 reis per ton (national measuring) on ships with cargo, and half that amount on those arriving and sailing in ballast. The local dues are levied annually on all ships entering this port; those of two masts pay 15 milreis, and those of three, 20 milreis.

3. There are no variations whatsoever in dues on ships arriving from or clearing out to the United Kingdom, to Colonies, or foreign countries and their Colonies.

4. Repayments are only made when legal documents are produced to show that dues have been paid the same voyage in any other port of the Empire; and the amount repaid is that which may have been deposited.

5. British, national, and foreign ships are all subject to the same regulations, and any extra charge made is in accordance to the infringement.

6. Seamen are all matriculated or enrolled on the books of the Captain of the Port, and while on shore are obliged to present themselves monthly, and are summoned at his discretion, either to assist in any case of necessity, or to serve in the arsenal. Their average rate of wages are 30 milreis per month.

(Signed) SAMUEL BOLSHAW, *Acting Vice-Consul.*

British Vice-Consulate, Rio Grande do Norte,
October 25, 1860.

RIO GRANDE DO SUL.

1. With reference to passengers there is no prohibition; but passengers are required to comply with the local passport regulations. In the event of an epidemic raging in the port, certain health or quarantine regulations have also to be complied with. British as well as foreign vessels are prohibited from conveying cargoes coastwise; but they may convey some articles, such as bark, beef, cattle, corn, &c., from one Brazilian port for sale in another Brazilian port, provided they proceed from that port to a foreign destination. The rule upon this matter is to last four years from 1859, and applies equally to all foreign vessels.

2. There is no difference in the amount of dues levied on British or foreign vessels; but Brazilian vessels do not pay the anchorage dues of 300 reis (7·80*d.*) per ton, Brazilian measurement, to which British and foreign vessels are subject when coming with cargoes; but if in ballast, British and foreign vessels pay only half anchorage dues. A vessel coming with passengers will probably be considered as a vessel with cargo. The dues levied are as follows: anchorage 300 reis (7·80*d.*) per ton measurement; stamps on the freight at the rate of

one-fifth per cent. of the amount and fixed stamps upon the documents required.

3. There are no variations in the dues, excepting as mentioned in Reply No. 2. The expenses of papers, and such like, will of course depend upon the requirements of each vessel.

4. I am not aware of any legislative enactment authorizing drawbacks or repayments; if, however, any injustice is inflicted, such as the classing of a vessel as with cargo when it should have been as in ballast, an appeal lies to the Provincial authorities; and also, if the shipmaster should consider that the tonnage of his vessel has been rated excessively, he can call for another measurement.

5. The charges borne by British and foreign vessels, from which the Brazilian vessels are exempt, have already been stated in Reply No. 2. There do not appear to be other charges which legally can affect British vessels disadvantageously; but the local arrangements, involving the charges insisted on by the merchants, weigh very heavily on British shipping. The Consular fees affecting British vessels are exceedingly small, and it is believed considerably less than those charged to vessels of other nations.

6. The average rate of wages on British vessels is about the same as in England, the seamen being usually shipped at the same rate as those previously engaged, say about 2*l.* 15*s.* for able-seamen, and 1*l.* 15*s.* for ordinaries. The Consul is able to exercise some control in this matter from the partial dependence on him of the boarding-house masters and seamen.

The principal regulations affecting British seamen appear to be the following:—

The Custom-house Regulation of 22nd of June, 1836, Article 145, section 2, provides that no person can leave the vessel before custom-house visit.

Section 3, same Regulation and Article:—No person to go on board before complete discharge without written license of Inspector of Custom-house; penalty, 50 milreis for each person who enters or leaves, and 200 milreis for each barque which goes alongside.

The regulation for Brazilian ports, Decree 447 of 1846, provides (Article 35), that no merchant-vessel shall have boat out after sunset gun, penalty 4 milreis. Also, Article 39, that no person shall appear naked or indecently dressed in the anchoring stations during the day; penalty three days' imprisonment. Also, Article 63, that no shipmaster shall ship a seaman without a certificate showing he is disengaged: if a Brazilian, to be obtained from the Captain of the Port, and if a foreigner, from the respective Consul; penalty, 4 milreis.

The Decree 855 of 1851 appoints (Article 13), that Consuls be Judges and Arbitrators in all questions respecting payments of crews, and in all civil questions among the seamen of their nation included in such crews. Also, Article 14, that Consuls have the jurisdiction in respect of offences committed during the voyage by the crew on board a vessel of their nation, provided those implicated be not Brazilians. Also, Article 15, that the criminal and political jurisdiction of Consuls should not extend to grave crimes. Also, Article 16, the authorities shall on application assist Consuls, so that they may perform their functions on board vessels of their nation, and shall also arrest deserters; Consuls being responsible for the expenses.

The Regulation of 1857 for the pilotage of Rio Grande, Article 2, in limiting the office of pilot at the Bar to Brazilian denizens, excludes British and foreign seamen from such an office at this port.

A Local Police Order determines that no boarding-house master shall receive a foreign seaman without the sanction of the appropriate Consul.

By a Police Regulation which is, in fact, a corollary of the above-quoted 35th Article of the Regulations of the Ports, no seaman is allowed to be on shore absent from his vessel without sufficient cause between sunset and sunrise; should they be met under such circumstances in the streets they will probably be detained under arrest until next day. A similar course will usually be adopted with seamen who break the public peace or appear intoxicated in the streets. Should the offence be of a more serious description, or the arrest have taken place not on the mere action of the police, but according to application from the shipmaster or other parties, the Consul will ordinarily be informed of the circumstances, and his advice taken as to the further proceedings which may be adopted. In cases, however, of crimes committed by seamen on shore, which

from their nature may not be summarily disposed of, the seaman will be subject to the local laws, and prosecuted irrespective of his position as seaman, the Consul being usually officially informed of the proceedings.

(Signed) H. P. VEREKER, *Her Britannic Majesty's Consul.*

British Consulate, Rio Grande do Sul, November 21, 1860.

ST. CATHERINE'S.

1. No British vessels are prohibited, so long as they comply with the Custom-house regulations.

Foreign vessels are not admitted to the coasting trade, except under certain conditions, the same as in other ports of the Empire.

2, 3, 4. No differential shipping dues of any description are levied.

All national, foreign, and British vessels pay a contribution of 20 reis a ton to the hospital.

5. There are no regulations specially affecting British ships, cargoes, crews, or passengers.

6. The Provincial Law No. 439 of the 29th May, 1857, Article 70, ordered a contribution of 800 reis to be levied for each of the crews (except the officers) of national and foreign vessels bound to any port out of this province; and 200 reis for each of the crews of vessels bound to any port of the province.

There is no standard by which the rate of wages can be calculated. In the coasting trade seamen are generally paid by the run; and the rate for foreign voyages is according to the port to which vessels may be bound.

(Signed) RANDAL CALLANDER,
Her Britannic Majesty's Consul.

Costa Rica. (San José.)

1. In no case.
2. There are not.
3. There are not.
4. There are no differential dues.
5. There are not.
6. There are no local laws specially affecting seamen. In cases of misdemeanour committed on shore, the authorities generally act in accordance with the suggestions of the Consul of the nation to which the ship belongs.

The average rate of wages at the port of Punta Arenas (the only port in the Republic) may be stated at 4*l.* per month; but it is frequently difficult to obtain seamen at a higher rate.

(Signed) ALLAN WALLIS.

British Consulate, San José, Costa Rica,
October 29, 1860.

Denmark.

ELSINORE.

1. The only prohibitions are:

The trade with the Colony of Greenland, which is a Government monopoly.

And foreign ships under 15 lasts (30 tons) register are not allowed to engage in the coasting trade of Denmark.

2. The shipping of unprivileged nations pay generally speaking 50 per cent. higher Royal and local dues than the shipping of Denmark and of the privileged nations.

The privileged nations are:—Great Britain and Ireland, United States, Belgium, Brazils, Bremen, Dominican Republic, France, Greece, Hamburgh, Lubeck, Hanover, Holland, and Netherlands, Roman States, Mecklenburg-Schwerin, Mexico, Oldenburg, Turkey, Portugal, Russia, Prussia, Sardinia, Two Sicilies, Spain, Sweden and Norway, Austria, Hungary, and Bohemia.

Royal Dues.

(1.) Lastage money, on the tonnage of the cargo, but not over and above the ship's register tonnage:—

	£	s.	d.
(*a.*) Coastways, or to and from foreign places places in the Elbe, between Hamburgh and Cuxhaven, when the ships have passed through the Holstein canal; also voyages between those foreign places and Ribe, Hjerting, Ringkjobing, and the Agger Canal Proper; or to and from Iceland, the Faro Islands, and the Danish West Indies; likewise ships engaged in the open sea fisheries, provided they have not discharged or loaded cargo in a foreign port: further, steamers with goods on post office account only, or only with passengers, their carriages and effects	Free.		
(*b.*) Ships to or from all other places per last 3 , or per ton	0	0	$6\frac{3}{4}$
(*c.*) Ships bringing pitch, tar, or potashes from foreign places, pay, on the stowage room of those articles only, 2 per last, or per ton	0	0	$4\frac{1}{2}$
Unprivileged ships which do not arrive direct from places out of Europe pay 50 per cent. additional, as do also Swedish ships bringing salt, in consequence of a like additional charge on foreign ships in Swedish ports.			
(2.) License-money:—			
Danish ships, and those of Great Britain and Ireland, France, Holland, Prussia, Sweden and Norway, and Portugal, trading to or from Iceland and the Faro Islands pay on the register tonnage per last 2 rix-dollars, or per ton	0	2	$3\frac{1}{2}$
Other and unprivileged ships the double.			
To and from the Danish West Indies, Danish and privileged ships 10 rix-dollars each, or	1	2	11
[N.B.—As goods in unprivileged ships would have to pay differential import duty, or as foreign produce, they are shut out from the trade with the Danish West Indies and Denmark.]			
(3.) Light-money, on the register tonnage:—			
(*a.*) Ships in the coasting trade, and as explained in section (*a*) "Lastage-money," at the port of departure only per last 3 β, or per ton ..	0	0	$0\frac{27}{32}$
(*b.*) Iceland and the Faro Islands	Free.		
(*c.*) Fisheries in the open sea—			
Inwards, per last 3 β, or per ton ..	0	0	$0\frac{27}{32}$
Outwards, per last 3 β, or per ton ..	0	0	$0\frac{27}{32}$
(*d.*) All other parts—			
On each inward and outward clearance:			
The ship on her register tonnage per last 16 β, or per ton	0	0	$2\frac{1}{4}$
The cargo on its stowage (always paid by the ship) per last 16 β, or per ton ..	0	0	$2\frac{1}{4}$

	£	s.	d.
Ballasted ships pay one half.			
Unprivileged ships 50 per cent. additional.			
(4.) Customs fees, on the register tonnage :—			
(*a.*) Coastways (as previously explained) and in open sea fisheries—			
Inwards, per last 3 β, or per ton ..	0	0	$0\frac{27}{32}$
Outwards, per last 3 β, or per ton ..	0	0	$0\frac{27}{32}$
(*b.*) Foreign trade—			
Inwards, per last 8 β, or per ton ..	0	0	$1\frac{1}{8}$
Outwards, per last 8 β, or per ton ..	0	0	$1\frac{1}{8}$
Ballasted ships one-half.			
Unprivileged ships 50 per cent. additional.			
[N.B.—Free of all Royal dues are ships which seek a harbour for shelter, to seek market or freight, on account of damage, &c., as also for preservation of cargo, on account of ice, or to winter; provided they take the whole cargo out again, and no more, whether it has been landed or not.]			

Local Dues.

Harbour dues at the port of Elsinore, national and privileged ships, whether coastways or foreign, on their full register tonnage :—			
(*a.*) Loaded ships (when above 1 ton has been discharged)—			
Inwards, per last 8 β, or per ton ..	0	0	$1\frac{1}{8}$
Outwards, per last 8 β, or per ton ..	0	0	$1\frac{1}{8}$
Loaded one way, ballasted the other, pay as loaded.			
(*b.*) Ballasted both ways—			
Inwards, per last 4 β, or per ton ..	0	0	$0\frac{9}{16}$
Outwards, per last 4 β, or per ton ..	0	0	$0\frac{9}{16}$
(*c.*) For every week over and above six weeks per last 4 β, or per ton	0	0	$0\frac{9}{16}$
Ships belonging to the port pay only half these dues.			
(*d.*) Ships seeking shelter on account of winds, ice, loss of anchors and chains, &c.,—			
Inwards, per last 4 β, or per ton ..	0	0	$0\frac{9}{16}$
Outwards, per last 4 β, or per ton ..	0	0	$0\frac{9}{16}$
(*e.*) Ships discharging cargo solely for its preservation pay only inward dues.			
(*f.*) Extras—			
For heaving down, daily [per last 1 β, or per ton	0	0	$0\frac{9}{64}$
Discharging or taking in ballast, daily per last 2 β, or per ton	0	0	$0\frac{9}{32}$
Ships of unprivileged nations pay one-half more.			
Ships with damage, whether they discharge cargo or not, provided they take it all out again, are	Free.		
Steamers in a regular trade, not less than three trips weekly, pay on the first trip half dues, on each of the other two (and not on more) one-quarter dues.			
Charges at the Port of Copenhagen :—			
Wharfage—			
Public wharfs per last 16 β, or per ton ..	0	0	$2\frac{1}{4}$
Private wharfs per last 24 β, or per ton ..	0	0	$3\frac{3}{8}$
3. None.			
4. None.			

5. None.

6. There are no particular local laws or regulations as affecting seamen. The common law is that all Danish seamen shall be engaged before a shipping-master, the fees for which are for one seamen 7 marks, or 2*s.* 7½*d.*; every additional seaman engaged in the same ship 1 mark, or 4½*d.*

The average rates of wages are per month: chief mate, 25 to 30 rix-dollars, or 2*l.* 16*s.* 7*d.* to 3*l.* 7*s.* 11*d.*; second mate, 20 to 22 rix-dollars, or 2*l.* 5*s.* 3*d.* to 2*l.* 9*s.* 9*d.*; carpenter, 16 to 20 rix-dollars, or 1*l.* 16*s.* 2*d.* to 2*s.* 5*s.* 3*d.*; cook, 19 to 20 rix-dollars, or 2*l.* 3*s.* to 2*l.* 5*s.* 3*d.*; able seamen, 16 to 18 rix-dollars, or 1*l.* 16. 2*d.* to 2*l.* 0*s.* 8*d.*; ordinary seamen, 12 to 14 rix-dollars, 1*l.* 7*s.* 2*d.* to 1*l.* 11*s.* 8*d.*; boy, 5 to 6 rix-dollars, or 11*s.* 4*d.* to 13*s.* 7*d.*

Elsinore, November 20, 1860.

ST. THOMAS.

1. No prohibition.

2. *Port Charges.*—Vessels from across the Atlantic, bringing or taking cargo, pay at the rate of 57 dollars 27 cents per 100 tons for tonnage-dues and harbour-master's fees. Vessels from the American side of the Atlantic, bringing or taking cargo, pay at the rate of 28 dollars 60 cents per 100 tons for ditto.

N.B. Vessels bringing entire cargoes of coals for the Royal Mail Steam-Packet Company are free of all charges; those with coals for merchants' account pay 34 dollars 34 cents per 100 tons—provided no cargo is taken; if taken, customary full port-charges.

Vessels calling off the port, seeking, trying the market, or for orders, have no charges to pay, except when they anchor, or enter the harbour; and vessels arriving here in distress are free of all Custom-house charges, when belonging to a nation reciprocating under similar circumstances.

Vessels arriving in ballast, or neither landing nor shipping cargo, pay only 3 dollars 20 cents per 100 tons.

Reduced Port Charges.—Vessels landing a part-cargo only, or arriving in ballast and taking a part-cargo from St. Thomas, pay according to certificate from the harbour-master; when under one-third of registered tonnage, half; and when under one-sixth, quarter port-charges.

Fort Pass.—Fee for sloops and schooners, 64 cents; brigantines and brigs, 1 dollar 28 cents; barques and ships, 2 dollars 56 cents.

Sundries.—Lighterage, 3 dollars per day; labour, 1 dollar 25 cents per day; 1 dollar 50 cents per night. Water, 1 to 2 cents per gallon put alongside. Ballast (stone), 60 cents per ton. No wharfage and no pilotage, unless a pilot be called.

Import Duty.—All merchandize pays according to invoice value, 1¼ per cent. West India produce, such as sugar, coffee, tobacco, cocoa, &c., pays 4 cents per cwt. Dye-woods, 25 cents per ton.

Export Duty.—All merchandize free, excepting West India produce, which pays 1¼ per cent. *ad valorem.*

3. As above.

4. None.

5. None.

6. The only regulation affecting seamen is, that they are not allowed on shore after 8 o'clock P.M. without a permit.

Wages average 2*l.* 10*s.* to 3*l.* sterling per month.

St. Thomas, October 27, 1860.

Egypt.

ALEXANDRIA.

1. No.

2. None whatever.

3. Reply as above.

4. No such dues.

5. None.

6. All seamen serving in foreign vessels are under the jurisdiction of the Consulate to which such vessels belong. The average rate of wages may be computed at 2*l.* to 2*l.* 10*s.* per month.

(Signed) SIDNEY SMITH SAUNDERS.

British Consulate, Alexandria, September 30, 1860.

DAMIETTA.

1. Il n'est pas défendu aux navires Britanniques ou de quelle nation que ce soit de prendre ou porter dans l'Echelle de Damiette (Egypte) des passagers Européens pourvu qu'ils soient munis d'un passeport en règle.

Les sujets Ottomans, non Egyptiens, doivent être porteurs d'un teskeré en règle (papier de route) du Cairo ou d'Alexandrie pour pouvoir partir pour l'étranger ; et ceux qui n'en ont pas doivent exhiber un garant. Les Egyptiens ne peuvent partir de Damiette sans donner une garantie pour un laps de temps déterminé pour le retour ; néanmoins il est défendu aux femmes Egyptiennes de partir pour l'étranger.

2. Aucun droit de port n'est payé par les navires de quelle que ce soit nation, les Ottomans compris, hors d'un petit "gift" (bakchich) au Capitaine du Port-Pilote pour les services qu'il rend aux navires et aux capitaines ; pourtant les capitaines Anglais et quelques uns des autres nations n'ont pas voulu le donner.

3. Aucun droit n'est perçu et par conséquence aucune variation ne peut y avoir lieu.

4. N'existant pas des droits à payer il ne peut y avoir lieu la restitution.

5. Aucune dépense ou coût est supporté par les bâtiments Britanniques, étrangers, ou Ottomans.

6. Il n'y a pas à Damiette des lois ou réglements de port arrêtés.

Les équipages ou matelots de Damiette et de la Syrie n'ont pas de salaire mensuel, mais ils sont payés à la part, savoir, du nolis que ces navires perçoivent sont déduites toutes les dépenses ; ensuite du montant net la moitié est pour compte du navire, et l'autre moitié pour compte du capitaine et de l'équipage ou matelots. Le capitaine est calculé pour deux matelots.

Droits de quarantaine que l'office sanitaire local de la ville de Damiette perçoit sur les navires Ottomans et sur tous les navires étrangers, soit à l'entrée soit à la sortie, chargés ou en lest :—

Quel navire que ce soit qui prend une patente de santé et qui est de la portée d'un kilo de Constantinople jusqu'à 1,000 kilo, paye piastres Egyptiennes 2 ; de kilo 1,001 à 12,000, le maximum, piastres Egyptiennes 20 ; et au-dessus de kilo 12,000, piastres Egyptiennes 24.

Interrogatoire aux capitaines des navires Ottomans et etrangers de la portée d'un kilo jusqu'à 3,000, piastres Egyptiennes 2 ; de kilo 3,001 jusqu'à 10,000, piastres Egyptiennes 10, le maximum ; de kilo 10,001 et au-dessus, piastres Egyptiennes 20. Les navires Ottomans et étrangers qui purgent leur quarantaine payent chaque jour : d'un kilo jusqu'à 1,000, piastres Egyptiennes 8 ; de kilo 1,001 jusqu'à 12,000, piastres Egyptiennes 30, le maximum ; de kilo 12,001 et au-dessus, piastres Egyptiennes 35.

N.B.—Les navires de guerre Ottomans et étrangers qui sont en quarantaine ne payent que le seul gardien de santé, savoir, piastres Egyptiennes 10 pour chaque jour.

Pour le parfum une seule fois piastres Egyptiennes 10.

Les passagers étrangers (Européens) qui entrent au Lazaret sont exempts du payement des droits de quarantaine.

Les passagers Musulmans payent à la sortie 1 piastre Egyptienne à titre de droit de teskéré de sortie (papier de route).

Les passagers étrangers (Européens) porteurs de passeport ou d'une carte de nationalité sont exempts de ce droit.

(Signé) M. SURUR,

Vice-Consul de Sa Majesté Britannique.

Damiette, ce 13 *Octobre*, 1860.

SUEZ.

1. British ships are not prohibited from taking cargo or passengers at the port of Suez from or to any part of the world.

2. No shipping-dues of any description are levied at Suez on national, foreign, or British ships arriving or departing from the port of Suez under any circumstances, whether in ballast or otherwise, beyond a small charge of a dollar for boat hire for the conveyance of the health officer to the roads on arrival and prior to taking pratique.

3. None.

4. The custom of giving drawbacks or of repaying dues once levied appears to be ignored altogether by the local authorities, and I know of no instance in which a refund has been obtained.

5. There are no regulations affecting British ships, cargoes, crews, or passengers entailing expenses not equally borne by national or foreign vessels.

6. There are no laws affecting seamen at the port of Suez, or impeding them in any way. The average rates of wages paid are 20 dollars per month, and half a dollar per day subsistence-money for European quartermasters; but the native seamen receive about 10 dollars per month, and are found by the ship.

(Sgned) GEO. WEST, *Vice-Consul.*

Suez, September 28, 1860.

France.

DUNKIRK.

1. British ships are permitted to bring and take cargo and passengers from or to all French ports to any part of the world, French ports and colonies excepted; the French coasting-trade being absolutely prohibited to English vessels, nor can they trade with any of the French colonies except Algeria: however, if in ballast, they can clear out of one French port and enter another, without paying any dues.

2. French vessels arriving from the United Kingdom have to pay Imperial navigation dues at the same rate as English vessels, viz., 1 franc per ton burden, and 20 per cent. French vessels arriving from any other country than the United Kingdom are not liable to pay these dues. On the other hand, British vessels pay 3 francs 75 centimes per ton and 20 per cent. The same dues are levied respectively on the vessels of either nation arriving in ballast; yet any English vessel arriving from any other country than the United Kingdom pays nothing.

3. These dues are claimed on vessels entering, and never on their leaving, port. See answer to No. 2.

4. No, never.

5. There are no extra charges, except pilotage for British ships when in port, not equally borne by national vessels.

6. All French sailors are under the immediate control of their Government; at all times they are liable to be called upon to serve in the Imperial navy at very low wages: in fact, when not serving, they may be considered as only on leave of absence. A French crew can never be paid off in a foreign country. Seamen must always return to France in the same vessel in which they embarked. Formerly French sailors could serve on board foreign vessels, by permission from the Commissary of Marine, but now no French sailor can have that permission until he passes the age of 40, as it is found that the young men desert.

The local authorities have nothing whatever to do with the French sailors; they are all registered at the Bureau de la Marine, and when a captain has found a crew, he must then enter their names, and it is only when the Commissaire gives his consent that they are finally enrolled. They then receive, in presence of that functionary or his substitute, who makes out the enrolment, either a month or six weeks' wages in advance, and the balance is paid to them in like manner on their return to a French port. However, the captain generally

advances trifling sums during the voyage, which they reimburse on being paid off, as likewise 3 per cent. on their wages towards a fund that allows them a pension after navigating so many years. When on shore, they are kept in good order by the Marine gendarmes, a few of whom are stationed at every seaport town.

The following are the average rates of wages per month :—

For long voyages beyond Europe.—Captain (besides 3 to 5 per cent. on freight), 150 to 200 francs; Mate, 120 to 150 francs; Lieutenant, 90 to 120 francs; Sailor, 35 to 65 francs; Apprentice (16 to 18 years of age), 45 francs; Cabin boy (7 to 16 years of age), 25 francs.

For the coasting-trade, including Baltic, Mediterranean, and Black Seas, per month.—Captain (3 per cent. on freight), 120 francs; Mate, 80 francs; Sailor, 55 francs; Apprentice, 40 francs; Cabin-boy, 25 francs.

No Frenchman can command a merchant-vessel without having a diploma, of which there are two classes: one for the coasting-trade (including Baltic, Mediterranean, and Black Seas); and the other for long voyages beyond Europe.

No French vessel can navigate with more than a third of foreign seamen.

(Signed) NORMAN PRINGLE.

Dunkirk, October 29, 1860.

CALAIS.

1. British ships are allowed to bring or to take away both passengers and merchandize to and from any part of the world, with the exception of to and from French ports; the trade between French ports being allowed to be carried on only by French vessels.

2. The shipping dues are as follows :—

(1.) Ships of all nations arriving or departing in ballast are exempt from dues.

(2.) For ships not assimilated to French vessels, carrying cargo, either arriving or departing 3 francs 75 centimes (3*s.*) per registered ton, and 20 per cent., also 20 francs (16*s.*) in addition, for "droits d'expédition" and "passport," or 38 francs (1*l.* 10*s.* 5*d.*), should the vessel exceed 200 tons.

2 francs 10 centimes (1*s.* 8½*d.*) per registered ton for Danish vessels, without reference to the place whence they came or whither they are bound.

1 franc (9¾*d.*) per registered ton, and 20 per cent., should the vessel be assimilated to French ships, such as are, for example, British, Russian, Spanish, or Belgian ships. This, however, is only on condition that they come from some port or possession of their respective country in Europe; otherwise the vessel would lose its right to "assimilation," and would pay at the rate of 3 francs 75 centimes per ton as described above. Yachts belonging to clubs only pay 2 francs (1*s.* 7½*d.*) for "droit de passeport," and 10 centimes (1*d.*) per registered ton for "droits de santé." Boats merely carrying passengers, performing a daily or regular periodical service, pay only on their arrival at the rate of 1 franc per passenger, and 20 per cent.

Pilotage.—25 centimes (2½*d.*) per registered ton for arriving and the same for departing, for French vessels laden, and the same for assimilated vessels laden, provided they come from and return to a port of their own country. 12½ centimes (1¼*d.*) per registered ton for vessels in ballast, either coming in or going out. 37½ centimes (3¾*d.*) per registered ton for entering, and the same for going out for vessels laden, not enjoying the privileges of assimilation, or for vessels assimilated, but not coming from or returning to a port of their own country 18¾ centimes (1⅞*d.*) per registered ton for vessels of this class, in ballast, either coming in or going out.

Boats in attendance on pilots.—7 francs (5*s.* 7½*d.*) on entering, and the same on leaving for French vessels, or for vessels assimilated entering either in ballast or laden, and coming from or going to one of their own ports. 10 francs 50 centimes (8*s.* 5*d.*) on entering, and the same on leaving, or 13 francs 50 centimes (10*s.* 9¾*d.*), or 22 francs (17*s.* 7½*d.*), according to the distance, for foreign vessels not assimilated, or for vessels assimilated, not coming from nor going to one of their own ports.

"Droits de santé," 10 centimes (1*d.*) per registered ton for vessels coming

from any part of Europe. 15 centimes (1½*d.*) per registered ton for vessels coming from any other part.

Floating basin, 5 francs (4*s.*), altogether, for coming in and going out.

"Droits de permis," 60 centimes (6*d.*), for French vessels, or for those assimilated. 1 franc 20 cents (11½*d.*) for vessels not assimilated.

Brokerage, 2 per cent., or 50 centimes (5*d.*), for every ton of merchandize for French vessels, or for those assimilated. Half as much again for vessels not assimilated.

"Droits de lestage" (ballast), 73 centimes (7¼*d.*) per ton, put on board in the floating basin.

Sundries for mooring, 1 franc (9¾*d.*) per man. Hawlers, from 50 cents (5*d.*) to 1 franc 20 centimes (11½*d.*) per man, according to distance.

3. Certainly, as the answers to Question No. 2 will have shown. British ships are assimilated to French when they come from or return to Great Britain, or when they come from or return to any possession of Great Britain, in Europe; but when they come from or return to any port not in Great Britain, nor in any British possession in Europe, or from or to any port out of Europe, they are considered as foreign vessels not assimilated. An English vessel is also forbidden to go from one French port to another French port, except in ballast.

4. A drawback is only allowed on the tonnage-dues for corn imported into France till September 1861. Should the vessel (either French or foreign) be laden with corn on its arrival in France, it is exempt from all tonnage-dues. Should it be only partly laden with corn, a reduction of the tonnage-dues is allowed according to the quantity.

5. There are none.

6. As far as seamen's wages are concerned, they average from 60 francs to 75 francs (2*l.* 8*s.* to 3*l.*) per month; 90 francs to 120 francs (3*l.* 12*s.* to 4*l.* 16*s.*) per month for mates; 120 francs (4*l.* 16*s.*) to 300 francs (12*l.*) per month for masters, according to the nature and length of the voyage, whether coasting or foreign, and according to the port of destination, whether healthy or otherwise.

(Signed) BEAUMONT HOTHAM,
Her Britannic Majesty's Consul.

Calais, September 29, 1860.

BOULOGNE.

1. No such prohibition exists at this port.

2. No Imperial or Local dues of any description are levied upon shipping at this port.

As a principle, national ships are free of tonnage-duty, whether coming from a French or foreign port in or out of Europe, with the exception of any port belonging to the British possessions in Europe, in that case they are charged as British ships, 1 franc 20 centimes per ton measurement.

Direct Trade.—Foreign ships pay the following tonnage-duty: American 5 francs, Spanish free, Danish 2 francs 10 centimes, Russian free, Dutch 2 francs 52 centimes, Belgian 2 francs 20 centimes, but only once in the current year, Sardinian free, Brazilian free, Portuguese 1 franc, Swedish and Norwegian 4 francs 50 centimes.

Indirect Trade.—Foreign ships pay the following tonnage-duty: British 4 francs 50 centimes, Spanish free, American 5 francs, Danish 2 francs 10 centimes, Russian 4 francs 50 centimes, Dutch 4 francs 50 centimes, Belgian 4 francs 50 centimes, with the exception of coming from England, in that case pay 1 franc 20 centimes, as French and English ships, Sardinian and Brazilian free, except when coming from England, when they pay 4 francs 50 centimes as above, Portugues, also.

N.B.—Ships belonging to countries having no Treaty of Navigation pay 4 francs 50 centimes, whether in the direct or indirect trade, loaded or in ballast.

Vessels in ballast.—Spanish free, American 5 francs, British, coming from British possessions in Europe 1 franc 20 centimes, from other countries free, Danish 2 francs 10 centimes, Russian, from British possessions in Europe 1 franc 20 centimes, from other countries free, Dutch from British possessions in Europe 1 franc 20 centimes, from other countries 2 francs 52 centimes, arriving and departing in ballast free.

The ships of the Republics of South America are placed upon the same footing as the Brazilian.

4. None.

5. None.

6. Wages (grand and petit cabotage) master per month 120 francs, with 5 per cent. upon the freight, mate 85 francs, seamen 60 francs, boys 20 francs to 40 francs, according to age and service.

Boulogne, October 25, 1860.

HAVRE.

1. British ships can bring merchandize or passengers from or convey to any part of the globe, except ports in France, or in French Colonies.

	Imperial Dues per ton.		Local Dues, per ton.	
	Fr.	c.	Fr.	c.
2. French ships on arrival in the port of Havre from England with coals, pay	0	$66\frac{2}{3}$	0	80
Ditto, with other merchandise from British Possessions in Europe	0	$66\frac{2}{3}$	1	10
Ditto, from all other countries	Free		0	75
British ships with coal from British Possessions, pay	0	$66\frac{2}{3}$	0	80
Ditto, with other merchandise from British Possessions in Europe	0	$66\frac{2}{3}$	1	10
United States' ships from all ports	3	50	2	25
Danish ships from all ports	1	40	1	45
Spanish, Sardinian, and generally South American ships	Free		0	75
Russian ships with cargo or in ballast.	Free		0	75
Ditto from British Possessions in Europe	0	$66\frac{2}{3}$	1	10
Dutch ships from British Possessions in Europe	0	$66\frac{2}{3}$	1	10
Ditto, from Dutch ports or in ballast	Free		0	75
Portuguese ships from British Possessions in Europe	0	$66\frac{2}{3}$	1	10
Ditto, with cargo from Portugal, or in ballast, and departing loaded.	0	$66\frac{2}{3}$	1	$8\frac{1}{2}$
Belgian ships from British Possessions in Europe	0	$66\frac{2}{3}$	1	10
Ditto, from other ports departing loaded	1	$46\frac{2}{3}$	1	$48\frac{1}{2}$
Dominican ships from any port	1	80	1	65

To these dues must be added a double décime of 20 per cent. of the amount levied for the Imperial dues, but not for Local dues. Also a salvage duty belonging to the Chamber of Commerce upon ships assimilated to French ships, 5 centimes per ton; upon all other ships, 10 centimes per ton.

3. British ships arriving from foreign countries, or from British Colonies out of Europe, are considered as foreign ships, and pay the highest duties where levied by reciprocity. Other variations appear in the answer to Query 2.

4. No drawbacks or repayments allowed in any case.

5. The rules for the government of the port are applied equally to the ships of every nation.

6. Seamen are not allowed to have fires or lights on board when in port. Under the police regulations they are not permitted to carry knives in sheaths; and must return to their ships in summer not later than 10 o'clock at night, and in winter not later than 9 o'clock.

The average rate of wages in British ships is 3*l.* per month for able-bodied seamen. On board United States' ships, wages, for able-bodied seamen, range from 3*l.* 10*s.* to 4*l.* per month; and the average rate of wages, for able-bodied seamen on board French ships, is 2*l.* 8*s.* per month.

Havre, September 28, 1860.

CHERBOURG.

1. British ships are prohibited from bringing or taking cargo or passengers at Cherbourg from or to any other French port and the Colonies.

2. The French Shipping Tariff is comprised under two heads viz.: 1. Vessels coming from British possessions in Europe; 2. Those from other countries. Under the first head, whether in ballast or cargo, British and French ships, and those belonging to Powers assimilated to France, pay 1 franc and the double décime a ton tonnage-dues; 2 francs, 6 francs, 15 francs, according to

tonnage for clearance-dues; ½ franc quittance, and passport for other than French ships 1 franc. Passenger ships pay 1 franc per passenger, instead of tonnage-dues. American ships paying 5 francs a ton. All other ships pay 3 francs 75 centimes tonnage-dues; 18 francs or 36 francs clearance; 1 franc quittance-dues. Under the second head, French and Spanish ships are exempt from these dues. British and other ships pay 3 francs 75 centimes a ton, and the highest clearance and quittance-dues; an exception being made in favour of certain Powers when their ships arrive from or clear out of their own country.

3. The only foreign ships trading at this port are Norwegian, Swedish, and Prussian (which have no Treaty with France), and occasionally Russian and Danish. Of these, Norwegian, Swedish, and Prussian, coming from or going to their own country, pay the same as British ships bound from or to their own Colonies, viz., 3 francs 75 centimes a ton. Danish vessels under these circumstances pay 6 centimes a ton, and Russian ships are exempt.

4. At this port no circumstances occur under which drawbacks are made.

5. None.

6. There are no local laws specially effecting seamen; but there is a special legislation for the masters and crews of merchant-ships, enacted March 24, 1852, by a Decree of the then President of the Republic, and compiled in a publication, "Decret-Loi disciplinaire et pénal pour la Marine Marchande." This work contains all offences except those for which the offender would be answerable to the penal Civil Tribunals. The master of each merchant-ship is compelled to have it on board, and to enter in a printed form every offence committed during the voyage, with the punishment inflicted.

In each French seaport a Merchant Shipping Court ("Tribunal Maritime-Commercial"), composed of five members, is attached to the office of the Commissary of Marine, who presides. The only appeal from this Court is to the "Préfet Maritime."

The steps to be taken for offences committed in a foreign country are also laid down.

Every sailor who has served in a merchant-ship for a year and a-half is registered in the books of the "Inscription Maritime" of the locality to which he belongs. At twenty years of age he is compelled to join a man-of-war, generally for three years; but whenever a levy of sailors is ordered he is again liable to serve, and is not exempt until he is 50. He is also virtually excluded from entering service in a foreign ship.

There are three kinds of engagements for sailors—1. By a share in the profits of the freight. 2. By the month. 3. By the voyage; but the last system is not practised at this port. Under the first, the clear profit of the freight is divided into three parts, of which the shipowner takes one, the two remaining parts being divided amongst the master and crew in proportion to their number, the master having an additional share. Wages by the month vary from 45 to 60 francs for outward-bound ships, and from 40 to 50 francs for the coasting trade.

One-third of the crew may be foreigners.

(Signed) HORACE HAMOND.

Cherbourg, September 11, 1860.

BREST.

1. Yes. British and foreign ships are prohibited from trading with the French Colonies.

The coasting trade between the ports of France is forbidden to all foreign ships, except Spanish ships.

2. Differential shipping dues (Imperial and local) are levied on British and foreign shipping trading between France and other countries than their own.

In the direct trade between Great Britain and France all dues are the same on ships of both nations. Particulars are given in the accompanying Table.

English ships in ballast, from or to any place whatsoever, are assimilated to French ships.

Port Charges at Brest on Ships of 300 tons burden.

Ships.	Arriving or Departing with Cargoes.	Pilotage (Inward and Outward).			Quarantine.			Custom-house Charges.														Brokerage.			Totals.		
								Tonnage Duty.			Clearance ("Expédition").			Receipt ("Droit d'Acquit").			Passport (or "Congé") for French Ships.										
		Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.	Fr.	c.	£ s. d.
French ...	From or to British Possessions in Europe	145	0	5 16 0	30	0	1 4 0	360	0	14 8 0	18	0	0 14 4	0	60	0 0 6	1	20	0 0 11	156	0	6 4 10	710	80	28 8 7			
English ...	Ditto	145	0	5 16 0	30	0	1 4 0	360	0	14 8 0	18	0	0 14 4	0	60	0 0 6	1	20	0 0 11	156	0	6 4 10	710	80	28 8 7			
French ...	From or to elsewhere	145	0	5 16 0	45	0	1 16 0	...		...	...		...	...		...	1	20	0 0 11	156	0	6 4 10	347	20	13 17 9			
English ...	Ditto	290	0	11 12 0	45	0	1 16 0	1,350	0	54 0 0	43	20	1 14 7	1	20	0 0 11	1	20	0 0 11	237	0	9 9 7	1,967	60	78 14 0			

3. There are no such variations with respect to British ships.

4. None.

5. None more than those mentioned in reply to Query No. 2.

6. There are no local laws at Brest affecting seamen. The average rate of wages is 2*l.* (50 francs) per month.

N.B.—The coasting trade is almost entirely by shares, the third of the profits being for the ship and two-thirds for the master and crew, who feed themselves. The average of a coasting sailor's monthly gain is about 1*l.* 12*s.* (40 francs).

(Signed) ANTHY. PERRIER.

British Consulate, Brest, September 24, 1860.

NANTES.

1. Entirely prohibited from and to all French colonies, as likewise from the coasting trade in France.

2. Differential tonnage dues are levied by the Imperial Government on all British ships bringing produce from any port not British or British islands in Europe, amounting to 3 francs 75 centimes per French ton, with 20 per cent. additional, equal to 3*s.* 2½*d.* sterling per ton, and have besides to pay an increase of 50 per cent. on the pilotage and brokerage. British ships clearing with cargo for a foreign port are exempt from these charges, as also when in ballast in or out.

3. All British ships arriving from Great Britain or her islands in Europe pay the same as French in every charge, viz., 1 franc per ton and 20 per cent., equal to 1*s.* per ton; if from her colonies out of Europe the above differential tonnage dues and extra charges are imposed, from which in such an instance the national vessels are entirely exempt.

4. No repayments under any circumstances take place.

5. None, excepting as above explained; if such British vessels bring foreign produce from places not being British ports or British colonies out of Europe.

A charge is made by the brokers at Nantes of 5*d.* per ton upon all ships chartered in Great Britain by English brokers, causing such vessels consequently to pay double brokerage.

6. French seamen cannot be shipped on a British or foreign ship without a special permission from the Commissary of the Marine, and the Captain requiring such hands must engage to send them back to this country. Average rate of wages 1*l.* 10*s.* to 2*l.* per month.

N.B.—All foreign ships, excepting the following, pay the same tonnage dues bringing produce from foreign ports as British, viz., 3 francs 75 centimes, and 20 per cent. Danish ships only pay from Denmark or elsewhere with cargoes, 2 francs 10 centimes (1*s.* 9*d.*) per ton. American ships pay from United States or elsewhere 5 francs (4*s.*) per ton. Spanish ships enjoy the privilege of carrying goods coastwise in France, which is not accorded to those of any other nation, and they never pay tonnage dues under any circumstances, no matter from what part of the world they arrive.

Nantes, September 12, 1860.

CHARENTE.

1. British ships are prohibited from bringing or taking cargo or passengers at this port from or to any part of France.

2. The Imperial Decree of the 22nd March, 1860, abolishes the navigation dues on the River Charente, but maintains those conceded to the town of Rochefort by the Imperial Decree of 16th July, 1857, until the repayment of the sum of 400,000 francs and interest, which sum was advanced by the town for the construction of a floating basin. Those dues amount to 15 centimes and the double décime per ton when loaded, and to 5 centimes with double décime per ton when in ballast.

3. None.

4. No.

5. The local charge mentioned in answer to the question No. 2, and the necessity of procuring from the authorities of the Imperial Marine permission to pass the dockyard (to obtain which it is necessary to exhibit the receipt for the

navigation dues). British and foreign ships (having no commercial transactions with Rochefort, but bound direct for Tonnay Charente) are in consequence forced to employ a broker at Rochefort at a charge of 20 centimes per ton up, and 20 centimes per ton down when with cargo, and reduced to 30 centimes per ton up and down when in ballast one way. French vessels have to comply with the same formalities, but requiring no interpreter are exempted from employing brokers at Rochefort, and thus have an advantage over British and foreign ships of 40 or 30 centimes per ton as the case may be. This expense affecting principally British ships would be avoided if permission was granted to pay the navigation dues upon the arrival of the ships at Charente.

This charge of the brokers at Rochefort does not appear in the Tariff now in force, and is consequently often modified by private arrangements between the brokers and the masters, owners, or consignees of ships; but in the draft of a new Tariff now before the Minister of Commerce for approval these charges have been inserted by the brokers at Rochefort. The French commerce of Tonnay Charente has protested against this double brokerage upon foreign ships.

6. The average rate of wages is as follows: masters about 8*l.* per month; mates, about 6*l.* per month; able seamen, from 2*l.* to 2*l.* 8*s.* per month; ordinary seamen, from 1*l.* 4*s.* to 1*l.* 12*s.* per month; boys, from 12*s.* to 16*s.* per month with provisions.

(Signed) P. W. HAMILTON.

Charente, September 17, 1860.

BORDEAUX.

1. Except trading in France coastwise, and between France and her colonies, British ships can bring or take cargo and passengers at all French ports, from or to any other parts of the world.

2. The differential Imperial shipping-dues levied at this and all other French ports, on national, foreign, and British ships, are stated in accompanying paper No. 1.

They are due on the vessels entering port.

The only differential local shipping-due to which foreign and British vessels are subjected is that for pilotage. It is termed "French" and "Foreign," and the rates vary accordingly.

The rates and distinctions are stated in accompanying paper No. 2.

3. Such variations exist, and are mentioned in the paper No. 1 above referred to.

4. No drawbacks or repayments of any such differential dues are made, under any circumstances, except to Dutch and Belgian vessels, to which one-half of the special tonnage duty of 2 francs 10 centimes (for Dutch) and of 2 francs 20 centimes (for Belgians) is returned, in case such respective vessels are forsaken, abandoned, or taken to pieces, before leaving the port at which the duty has been paid.

5. There are none here.

6. The only local regulation affecting foreign and British seamen at this port is that which prohibits their being on shore after sunset, but this is seldom enforced, and only in case of a breach of the peace, or when the men are found intoxicated, or when quarrelsome or otherwise disorderly, when they are taken to the town jail and kept there till claimed by their masters.

No special local regulations affect the French seamen.

The present average rates of wages of French crews out of this port are as follows:—

Colonial Traders:—Captains, 250 francs (10*l.*); 1st Mates, 125 francs (5*l.*); 2nd Mates, 90 francs (3*l.* 12*s.*); Boatswains, 82 francs 50 centimes (3*l.* 6*s.*); Carpenters, 62 francs 50 centimes (2*l.* 10*s.*); Stewards, 45 francs (1*l.* 16*s.*); Cooks, 63 francs (2*l.* 10*s.* 5*d.*); Seamen 50 francs (2*l.*); Ordinary seamen, 35 francs (1*l.* 8*s.*); Boys, 22 francs 50 centimes (18*s.*).

Traders to the Black Sea, the Mediterranean, and parts beyond Cape Finistere (grand cabotage):—Masters, 200 francs (8*l.*); Mates, 115 francs (4*l.* 12*s.*); Boatswains, 80 francs (3*l.* 4*s.*); Seamen, 50 francs (2*l.*); Ordinary seamen, 32 francs 50 centimes (1*l.* 6*s.*); Boys, 20 francs (16*s.*).

Other European and Home coasting Traders (petit cabotage):—Masters,

150 francs (6*l.*); Mates, 76 francs (3*l.* 1*s.*); Seamen, 45 francs (2*l.*); Ordinary Seamen, 27 francs 50 centimes (1*l.* 2*s.*); Boys, 17 francs 50 centimes (14*s.*).

A great number of the crews of the latter description go by the share.

The above information has been taken from the books of the Marine Office where the crews are shipped and paid off.

It must, however, be remarked that a deduction of 3 per cent. for the invalids of the Navy, being always made from the wages of every member of the crews, it frequently occurs that in order to avoid a part of this stoppage, the Captains and officers do not declare the true amount of the monthly salary they have agreed for with the owners.

British Consulate, Bordeaux, October 6, 1860.

(No. 1.)—A Detailed Statement of Differential Shipping Dues levied at the Port of Bordeaux, on National, British, and Fore

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
French.							Vessels of all countries measuring less than 5 tons, pay no clearance duty.
Arriving—							
When from British Possessions in Europe—							
Whether laden or in ballast—	per ton	per ton	each ship	each ship	each ship	each ship	
Measuring from 5 tons exclusively to 150 tons inclusively	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Packets exclusively employed in conveying passengers, and measuring as above .. .. per passenger	1 0	0 0 10	as above	as above	0 50	0 0 5	
Laden or in ballast—							
In every other case, and whencesoever coming	Free	Free	Free	Free	Free	Free	

VESSELS BELONGING TO COUNTRIES HAVING A TREATY OF NAVIGATION WITH FRANCE.

British.						
Arriving—						
When from British Possessions in Europe, and not putting-in in distress—						
Laden or in ballast—						
Measuring from 5 tons exclusively to 150 tons inclusively	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5
„ 150 tons „ 300 tons „			6 0	0 4 10		
„ upwards of 300 tons			15 0	0 12 0		
In ballast—						
From elsewhere	Free	Free	Free	Free	Free	Free
When putting-in in distress, from an English port in Europe and bound to another French or to a foreign port	Free	Free	Free	Free	Free	Free
Fishing-boats						
Laden—						
When putting-in in distress, from and to a foreign port	3 75	0 3 0	..	..	1 0	0 0 10
In all other cases but the above—						
Measuring from 5 tons exclusively to 200 tons inclusively			18 0	0 14 5		
„ upwards of 200 tons			36 0	1 8 10		
Smugglers, measuring 30 tons and less	1 25	0 1 0	Free	Free	1 0	0 0 10

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
Spanish.							
Arriving—							
When from British Possessions in Europe, not putting-in in distress—	per ton	per ton	each ship	each ship	each ship	each ship	
Whether laden or in ballast—							
Measuring from 5 tons exclusively to 150 tons inclusively	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
In all other cases	Free	Free	Free	Free	Free	Free	
Americans (U.S.).							The tonnage duty levied on American ships is free of the double décime. It is taken after the ship's register measurement.
When from any part of the world, but not putting-in in distress—							
Whether laden or in ballast—							
Measuring from 5 tons exclusively to 150 tons inclusively	5 0	0 4 0	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
When putting-in in distress	Free	Free	Free	Free	Free	Free	
Danes.							
When from any part but the British Possessions in Europe—							
Steamers, exclusively employed in carrying passengers and letters	0 6	0 0 0½	Free	Free	0 50	0 0 5	
Others—							
Having put-in in distress and sailing again with the same cargo ..							
Sailing again with or without cargo, after having been stranded ..							
Calling at a port for repairs, or for orders, but transacting no business ..							
Laden or in ballast—							
In every other case, except when from British Possessions in Europe	2 10	0 1 8	Free	Free	0 50	0 0 5	
When from British Possessions in Europe—							
Laden or in ballast—							
Measuring from 5 tons exclusively to 150 tons inclusively	2 10	0 1 8	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
Russians.	per ton	per ton	each ship	each ship	each ship	each ship	
Arriving—							
When from Russia or the Grand Duchy of Finland—							
Laden or in ballast	Free	Free	Free	Free	Free	Free	
Yachts, whencesoever coming	Free	Free	Free	Free	Free	Free	
When from the British Possessions in Europe—							
Laden or in ballast—							
Having already paid the dues at another French port..	Free	Free	Free	Free	Free	Free	
In ballast—							
In all other cases—							
Measuring from 5 tons exclusively to 150 tons inclusively ..	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „ ..			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Laden—							
Sailing again without having transacted any business, measuring as above							
Having already paid the dues at another French port..	Free	Free	Free	Free	Free	Free	
In all other cases—							
Measuring from 5 tons exclusively to 200 tons inclusively ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
When from any part but Russia or the British Possessions in Europe—							
Laden—							
Sailing again without having transacted any business, or having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
Arrived in ballast							
Laden—							
In every other case—							
Measuring from 5 tons exclusively to 200 tons inclusively ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
Laden or in ballast—							
When putting-in in distress, whencesoever coming	Free	Free	Free	Free	Free	Free	

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
Dutch.							
Arriving—							
When from anywhere but the British Possessions in Europe—	per ton	per ton	each ship	each ship	each ship	each ship	The special tonnage duty of 2 francs 10 centimes which is subjected to the double décime, is levied only once a year, on the ship's first arrival at a French port, whatever may be the number of voyages effected during that period, provided she comes direct from a Dutch port.
In ballast—							
Sailing again in ballast, or after having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In all other cases	2 10	0 1 8	Free	Free	0 50	0 0 5	
Laden—							
Sailing again without having transacted any business, or after having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In all other cases—							
When from the Netherlands	Free	Free	Free	Free	Free	Free	
When from elsewhere but England—							
Measuring from 5 tons exclusively to 200 tons inclusively ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
When from British Possessions in Europe—							
Laden—							
Transacting business—							
Measuring from 5 tons exclusively to 200 tons inclusively ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
Laden and in ballast—							
Sailing again without having transacted any business—							
Measuring from 5 tons exclusively to 150 tons inclusively ..	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „ ..			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Having already paid the dues at another French port, or putting-in in distress, whencesoever coming	Free	Free	Free	Free	Free	Free	
Belgians.							
When from anywhere but the British Possessions in Europe—							
In ballast—							
Sailing again in ballast, or after having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In every other case	2 20	0 1 9	Free	Free	0 50	0 0 5	

A Detailed Statement of Differential Shipping dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
BELGIANS—*continued.*							
Arriving—	per ton	per ton	each ship	each ship	each ship	each ship	
When from anywhere but British Possessions in Europe—							
Exclusively employed in carrying passengers and despatches	Free	Free	Free	Free	Free	Free	
Laden—							
Sailing again without transacting any business, or after having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In any other case, when from a Belgian port	2 20	0 1 9	Free	Free	0 50	0 0 5	
In any other case, from elsewhere but the United Kingdom—							
Measuring from 5 tons exclusively to 200 tons inclusively ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
When from British Possessions in Europe—							
Laden—							
Transacting business—							
Measuring from 5 tons exclusively to 200 tons inclusively.. ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
Having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
Sailing again without having transacted any business—							
Measuring from 5 tons exclusively to 150 tons inclusively ..	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Exclusively employed in carrying passengers and despatches—	per	passenger					
Measuring from 5 tons exclusively to 150 tons inclusively	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
In ballast—							
Sailing again in ballast—							
Measuring from 5 tons exclusively to 150 tons inclusively ..	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In every other case	2 20	0 1 9	Free	Free	0 50	0 0 5	
Laden or in ballast—							
When putting-in in distress, whencesoever coming	Free	Free	Free	Free	Free	Free	

The special tonnage duty of 2 francs 20 centimes is not subjected to the double décimé, and is paid after the ship's register measurement once a-year only, on her first arrival at a French port, whatever may the number of voyages effected during that period, provided she always arrives from a Belgian port direct.

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ *s.* *d.*	Fr. c.	£ *s.* *d.*	Fr. c.	£ *s.* *d.*	
SARDINIANS.	per ton	per ton	each ship	each ship	each ship	each ship	
Arriving—							
When from the Sardinian Possessions—							
Laden or in ballast	Free	Free	Free	Free	Free	Free	
When from British Possessions in Europe—							
In ballast—							
Having already paid the dues at another French port..	Free	Free	Free	Free	Free	Free	
In all other cases—							
Measuring from 5 tons exclusively to 150 tons inclusively ..	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „ ..			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Laden—							
Sailing without having transacted any business—							
Measuring from 5 tons exclusively to 150 tons inclusively ..	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „ ..			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
Having already paid the dues at another French port..	Free	Free	Free	Free	Free	Free	
In all other cases—							
Measuring from 5 tons exclusively to 200 tons inclusively ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
When from anywhere but British Possessions in Europe—							
In ballast, or putting-in in distress	Free	Free	Free	Free	Free	Free	
Laden—							
Sailing again without having transacted any business, or after having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In all other cases—							
Measuring from 5 tons exclusively to 200 tons inclusively . ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
MONACO.							
The same as the Sardinians.							

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
NEAPOLITANS.							
Arriving—	per ton	per ton	each ship	each ship	each ship	each ship	
Laden or in ballast—							
When putting-in in distress, whencesoever coming	Free	Free	Free	Free	Free	Free	
When from British Possessions in Europe—							
In ballast							
Laden—							
Steamers originally cleared from ports of the Two Sicilies, or bound to such ports—	1 0	0 0 10			0 50	0 0 5	
Measuring from 5 tons exclusively to 150 tons inclusively.. ..			2 0	0 1 7			
,, 150 tons ,, 300 tons ,, ...			6 0	0 4 10			
,, upwards of 300 tons			15 0	0 12 0			
In all other cases—							
Measuring from 5 tons exclusively to 200 tons inclusively.. ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
,, upwards of 200 tons ,, ...			36 0	1 8 10			
When from any part but the Two Sicilies and the British Possessions in Europe—							
Laden—							
Other vessels than the abovementioned steamers—							
Measuring from 5 tons exclusively to 200 tons inclusively.. ..	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
,, upwards of 200 tons			36 0	1 8 10			
Steamers originally cleared from ports of the Two Sicilies or bound for such ports	Free	Free	Free	Free	Free	Free	
In ballast—							
Others	Free	Free	Free	Free	Free	Free	
TUSCANS.							
When putting-in in distress, whencesoever coming							
When from Tuscany—							In all cases the tonnage duty is levied after the ship's register measurement.
Laden or in ballast	Free	Free	Free	Free	Free	Free	
When from anywhere but Tuscany and the British Possessions in Europe—							
In ballast—							

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
TUSCANS—*continued.*							
Arriving—							
When from British Possessions in Europe—	per ton	per ton	each ship	each ship	each ship	each ship	
In ballast—							
Measuring from 5 tons exclusively to 150 tons inclusively	1 0	0 0 10	0 2 0	0 1 7	0 50	0 0 5	
„ 150 „ 300 tons „			0 6 0	0 4 10			
„ upwards of 300 tons			0 15 0	0 12 0			
Laden—							
When measuring from 5 tons exclusively to 200 tons..	3 75	0 3 0	0 18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			0 36 0	1 8 10			
PORTUGUESE.							
When from British Possessions in Europe—							
Laden or in ballast							Except when from Portugal laden, the tonnage duty levied on Portuguese ships is subjected to the double décime.
When from Portugal—							
Laden							
When from Portugal and sailing again with a cargo—	1 0	0 0 10			0 50	0 0 5	
In ballast							
Measuring from 5 tons exclusively to 150 tons inclusively			2 0	0 1 7			
„ 150 tons „ 300 tons „			6 0	0 4 10			
upwards of 300 tons			15 0	0 12 0			
Laden or in ballast—							
When from any country, and sailing again without taking a cargo, or having transacted business	Free	Free	Free	Free	Free	Free	
When putting-in in distress, or having already paid the dues at another French port	Free	Free	Free	Free	Free	Free	
In all other cases—							
Laden or in ballast—							
Measuring from 5 tons exclusively to 200 tons inclusively	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
Dominicans.							
Arriving—	per ton	per ton	each ship	each ship	each ship	each ship	
Laden or in ballast—							
When putting-in in distress, whencesoever coming, or when the dues have already been paid at another French port	Free	Free	Free	Free	Free	Free	
When directly from a port of the Dominican Republic	2 70	2 2	Free	Free	0 50	0 0 5	The tonnage duty includes the décime.
When from any part but the Dominican Republic—							
In ballast	3 75	0 3 0	Free	Free	1 0	0 0 10	Ditto
Laden							
Brazilians.							
When from British Possessions in Europe, not putting-in in distress—							
Laden or in ballast—							
Measuring from 5 tons exclusively to 150 tons inclusively	1 0	0 0 10	2 0	0 1 7	0 50	0 0 5	
„ 150 tons „ 300 tons „			6 0	0 4 10			
„ upwards of 300 tons			15 0	0 12 0			
In all other cases	Free	Free	Free	Free	Free	Free	
Bolivians, Uruguayans, Mexicans, Venezuelians, Equatorians, New Granadians, Guatemalians, and Costa Rica, as the Brazilians: Salvadorians, Nicaraguayans, Paraguayans, Chilians, and Peruvians, the same as the French.							The tonnage dues on Salvadorians and Nicaraguayans are levied after their respective register measurement.
In cases of putting-in in distress only—							
Laden or in ballast—							
Mecklenburg	Free	Free	Fre	Free	Free	Free	
Austrians							
Hanseatics							
Prussians							
Hanoverians							
In all other cases the above vessels are treated as those belonging to countries having no Treaty of Navigation with France.							

A Detailed Statement of Differential Shipping Dues levied at Bordeaux, &c.,—*continued.*

Nationality of Vessels, and Circumstances under which the Dues are levied.	Tonnage Duty.		Clearance Duty.		Receipt for Duties.		Remarks.
	Currency.	Sterling.	Currency.	Sterling.	Currency.	Sterling.	
	Fr. c.	£ s. d.	Fr. c.	£ s. d.	Fr. c.	£ s. d.	
SWEDES AND NORWEGIANS.	per ton	per ton	each ship	each ship	each ship	each ship	
Arriving—							
When from a foreign port and bound to another foreign port—							
Laden—							
Measuring from 5 tons exclusively to 200 tons inclusively	0 50	0 0 5	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
In ballast—							
Measuring from 5 tons exclusively to 200 tons inclusively	0 25	0 0 2½	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
SHIPPING DUES LEVIED ON VESSELS BELONGING TO COUNTRIES THAT HAVE NO TREATY OF NAVIGATION WITH FRANCE.							
Laden or in ballast—							
Measuring from 5 tons exclusively to 200 tons inclusively	3 75	0 3 0	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
When exclusively employed in carrying passengers—	per	passenger					
Measuring 200 tons or less	1 0	0 0 10	18 0	0 14 5	1 0	0 0 10	
„ upwards of 200 tons			36 0	1 8 10			
When putting-in in distress—							
Laden or in ballast—							
Coming from a French port	Free	Free	Free	Free	Free	Free	
Cleared out at a foreign port, and bound for another French port ..							
When from another French port and coming to take a complete cargo ..							

(No. 2.)—Table of the Rates of Pilotage at Bordeaux.

Draught of Water.									For one Pilotage.					
French Measure.				English Measure.					For French and assimilated vessels.			For Foreign or non-assimilated vessels.		
									Currency.		Sterling.	Currency.		Sterling.
M.	c.	M.	c.	Ft.	in.	l.	Ft.	in.	l.	Fr.	c.	£ s. d	Fr.	c.	£ s. d.
3	20	and under		10	6	0 and under			..	35	20	1 5 9	52	80	2 2 3
3	21	to 3	40	10	6	5 to	11	1	10	37	40	1 9 11	56	20	2 4 11
3	41	„ 3	60	11	2	3 „	11	9	8	39	60	1 11 8	59	40	2 7 6
3	61	„ 3	80	11	10	1 „	12	5	6	41	80	1 13 5	62	70	2 10 2
3	81	„ 4	0	12	5	11 „	13	1	4	44	0	1 15 2	66	0	2 12 10
4	1	„ 4	20	13	1	9 „	13	9	2	55	25	2 4 2	82	87	3 6 4
4	21	„ 4	40	13	9	7 „	14	5	0	58	50	2 6 10	87	75	3 10 2
4	41	„ 4	60	14	5	5 „	15	0	10	61	20	2 8 11	91	80	3 13 4
4	61	„ 4	80	15	1	3 „	15	8	8	63	85	2 11 9	95	77	3 16 3
4	81	„ 5	0	15	9	1 „	16	4	6	66	50	2 13 2	99	75	3 19 10
5	1	„ 5	20	16	4	11 „	17	0	5	69	15	2 15 0	103	72	4 3 0
5	21	„ 5	40	17	0	0 „	17	8	2	71	80	2 17 5	107	70	4 6 2
5	41	„ 5	60	17	8	7 „	18	0	4	74	50	2 19 7	111	75	4 9 10
5	61	„ 5	80	18	4	5 „	18	11	10	77	15	3 1 9	115	72	4 12 7
5	81	„ 6	0	19	0	3 „	19	7	6	79	80	3 3 10	119	70	4 15 9

French and assimilated Foreign and British steamers pay only one-half of the lower rate of pilotage, termed "French."

There are two classes of assimilated vessels :—

1st. Without any restrictions ; 2nd. With restrictions.

The following are assimilated without any restrictions :—

Americans (United States), Belgians, Bolivians, Brazilians, Chilians, Costa Rica, Danes, Dutch, Equatorians, Guatemalians, Honduras, Mexicans, New Granadians, Paraguayans, Spanish, Sandwich Islands, Uruguayans, Venezuelians.

Vessels assimilated under certain conditions.

Nationality.	Conditions.
British	When arriving or sailing, laden, from and to ports of the United Kingdom, or from and to British Possessions in Europe.
	When arriving or sailing in ballast, whencesoever coming or whithersoever going.
Two Sicilies..	When arriving directly, laden, from a port of the Two Sicilies.
	When arriving in ballast from any port whatever.
	Packets and steamers, even after calling at intermediate ports.
Dominicans	When arriving directly, laden, from any port of the Republic, or in ballast, from anywhere.
Portuguese	Arriving directly, laden, from Portuguese ports, and in ballast, from any port whatever.
	Steamers employed in a regular and periodical service between Portuguese ports, and those of any other country, calling either on the outward or the homeward passage, at the ports of Bordeaux and Havre.
Russians	When arriving laden from a Prussian or a Finland port, and in ballast from anywhere.
Sardinians	When arriving directly, laden, from a Sardinian port, and in ballast from any port whatever.
Tuscans	When arriving directly, laden, from Tuscan ports, and from all ports whatever in ballast.

French vessels measuring from 70 tons to 110 tons, usually employed in the home-coasting trade, that is, between the ports situated in the Mediterranean, as well as on the ocean, pay a fixed rate as follows :—

From 70 tons to 90 tons inclusively 20 francs (16*s.*) per pilotage.

From 90 tons to 110 tons inclusively 25 francs (20*s.*) ditto.

No regard being had to the draught of water.

There are $3\frac{1}{4}$ pilotages from sea to Bordeaux from 1st of April to 30th September, and $3\frac{3}{4}$ from 1st October to 31st March.

There are $3\frac{1}{4}$ from Bordeaux to sea all the year round.

With the exception of French coasters, measuring less than 80 tons, and whose masters are well acquainted with the entrance of the rivers, all other ships, national as well as foreign and British, are under the obligation of taking a pilot.

BAYONNE.

1. No prohibition.

2. A British vessel entering a French port from a port other than an English one, is subject to the foreign duties, as well for the ship as the cargo. Such dues consist in the tonnage, pilotage, signal dues, and other harbour dues; no extra charge on British vessels coming in ballast to this port. British vessels coming from Spanish ports in ballast are free from tonnage dues.

3. British vessels arriving from or clearing for the United Kingdom, or British Colonies, are subject to no more charge than French vessels, coming from or going to French Colonies. If they proceed from or to foreign countries or their Colonies, extra charge is paid as explained in No. 2. Tonnage duties if from England or a British Colony, for a British vessel 1 franc per ton, and per-centage. If from a foreign port 3 francs 75 centimes per ton and per-centage, 20 per cent.

4. None.

5. None.

6. There are no regulations affecting seamen in this port which do not exist in other French ports.

The average wages: coasting trade, about 55 francs per month; foreign trade, 80 to 100 francs, calculated by distance and climate.

Bayonne, September 19, 1860.

MARSEILLES.

1. There are no prohibitions of any sort whatsoever.

2. Marseilles being a free port there are no differential duties. No charges are made for tonnage or lights; and by the Decree of June 4, 1853, the sanitary charges were fixed. A copy of the Table of Dues in the said Decree is hereunto annexed. A Table of the charges for pilotage is also annexed.

3. There are no variations of any sorts. See preceding reply.

4. There are no drawbacks or repayments of any sort.

5. British and foreign ships in port are precisely upon the same footing as French vessels.

6. French seamen are all placed upon the Maritime Inscription, and under the control of the Imperial Commissary of Marine. All foreign seamen are under the control of their respective Consuls, and are subject to the general French police regulations.

The average wages of French seamen at this port are 60 francs, and foreign sailors get from 2*l.* 10*s.* to 3*l.* per month.

Marseilles, October 31, 1860.

Extract from the Imperial Decree of June 4, 1853.

Article 7. Les droits sanitaires actuellement établis sont remplacés par les taxes suivantes :—

(*a.*) Droits de reconnaissance à l'arrivée.

	Fr.	c.
Navires naviguant au cabotage, de port Français à port Français, d'une mer à l'autre, par tonneau	0	5
Navires naviguants au cabotage étranger, idem	0	10
Navires naviguant au long cours, idem	0	15
Paquebots arrivant à jour fixe d'un port de l'océan, idem ..	0	5
Paquebots venant d'un port étranger dans un port Français de la Méditerranée, si la durée habituelle de sa navigation n'excède pas douze heures, par tonneau	0	5
Les paquebots appartenant à ces deux dernières catégories pourront contracter des abonnements de six mois ou d'un an. L'abonnement sera calculé à raison de cinquante centimes par tonneau et par an, quel que soit le nombre des voyages.		

(*b.*) Droit de station.

Payable par les navires soumis à une quarantaine, par tonneau, pour chaque jour de quarantaine	0	3

(*c.*) Droit de séjour au lazaret.

	Fr.	c.
Par jour et par personne, souf les exceptions ci-après indiquées	2	0

(*d.*) Droits sur les marchandises déposées et désinfectées dans les lazarets.

Marchandises emballées par 100 kilogrammes	0	50
Cuirs, les 100 pièces	1	0
Petites peaux non emballées, les 100 peaux	0	50

(Extract.)

Tarif des Droits de Pilotage.

Extrait de l'Ordonnance Impériale du 23 Juillet, 1859.

NAVIRES FRANCAIS.

	Par Tonneau.	
	Jour.	Nuit.
	Fr. c.	Fr. c.
Entrée—		
Première ligne	0 17·25	0 19·25
Seconde ligne	0 12·94	0 14·69
Troisième ligne	0 4·31	0 5·06
Sortie	0 17·25	

NAVIRES ETRANGERS.

	Par Tonneau.	
	Jour.	Nuit.
	Fr. c.	Fr. c.
Entrée—		
Première ligne	0 25·92	0 28·92
Seconde ligne	0 19·44	0 21·69
Troisième ligne	0 6·48	0 7·23
Sortie	0 17·50	

NOTE—Les navires qui retournent payent demi-droit.

CORSICA.

1. In no case are British ships prohibited from bringing or taking cargo, or passengers, from or to any port in the world.

2. British ships arriving or departing with cargo to or from any port in Europe pay the same as national, Spanish, Sardinian, Mecklenburg, and Neapolitan ships, 1 franc per ton.

From any port or possession out of Europe 3 francs 75 centimes per ton.

3. There are not any variations of port-dues within this Consulate.

4. None.

5. Not any.

6. There are not any regulations of the port affecting seamen.

The average rate of wages per month is from 1*l.* 15*s.* to 2*l.*

Corsica, September 17, 1860.

ALGIERS.

1. British ships are prohibited from engaging in the coasting trade between all the ports of Algeria and all the ports of France; this prohibition extends to all foreign flags.

2. All foreign vessels arriving either in ballast or with cargo pay tonnage

dues in the ports of Algeria of 4 francs per ton with the exception of those of Russia, Belgium, Portugal, and Sardinia; these countries have Treaties with France by which the tonnage dues are established in Algeria at 2 francs per ton in the direct trade. The national flag is exempt from tonnage dues.

3. Vessels of all nations arriving in the ports of Algeria in ballast, or importing cargoes of wood from the north of Europe, and exporting a cargo of the produce of this colony, are exempt from tonnage dues.

4. Drawback would be allowed in the case of a vessel arriving in ballast, or with a cargo of wood from the north of Europe, and having paid tonnage dues, but eventually exporting a cargo of the produce of Algeria.

5. The national flag is also favoured by the Custom duties, being less on importations under it than on importations under the foreign flag.

6. In this colony all Frenchmen who have it certified that they owe no service to the State can enter the foreign merchant service. In the case of subjects of other Powers, the like permission is usually granted by their respective Consuls in Algeria. Good seamen may be obtained from 2*l.* to 2*l.* 10*s.* per month.

(Signed) JOHN BELL, *Consul-General.*

Algiers, October 5, 1860.

NICE.

1. In no case are British ships prohibited from taking cargoes or passengers at the port of Nice from or to any part of the world.

2. There are no local shipping-dues of any description levied on national, foreign, or British ships arriving at or departing from the port of Nice. There are differential Imperial shipping-dues levied on vessels of all nations, according to the country from which they come, and whether they are carrying cargoes or in ballast. These dues are called tonnage-dues.

	Fr.	c.
French vessels coming from the British possessions in Europe, pay, per ton	1	0
French vessels carrying passengers only	1	0
French vessels coming from England, and returning to it with a cargo of salt	Free.	
Returning direct from England in ballast, after having taken there a cargo of salt	Free.	
American vessels coming from any foreign country, each voyage, per ton	5	0
English vessels coming from the British possessions in Europe, except when forcibly putting into a French port, per ton	1	0
Coming in ballast from elsewhere than the British possessions	Free.	
English vessels forcibly arriving from a British port, destined for a French or other foreign port	Free.	
From a foreign port to another foreign port with cargo, per ton	3	75
In every other case, per ton	3	75
British vessels entering the port of Marseilles are	Free.	
British vessels leaving for a foreign port with a cargo of salt	Free.	

3. There are differential shipping-dues with eight or ten nations with which France has concluded Treaties of Commerce, which dues are heavier than those levied on British ships.

Ships belonging to nations which have no Treaty of Navigation pay a due of 3 francs 75 centimes per ton, except in cases of being forcibly driven into port. There are no exit-dues.

4. No drawbacks or repayment of any such differential dues are made under any circumstances to national, foreign, or British vessels; nevertheless, as stated in reply to Questions 2 and 3, there are cases in which the dues are not levied if under the following circumstances:—Yachts; men-of-war freighted on account of Government, and used for military purposes; entering the port of Marseilles; wrecked, and abandoned, and strayed; leaving with a cargo of salt for a foreign port, or for Newfoundland fisheries; vessels specially admitted to the coasting-

trade; vessels coming from another port of France to effect or complete a cargo.

5. There are no regulations specially affecting British vessels, cargoes, crews, or passengers, entailing upon such ships when in port extra charge or expense, not equally borne by national or foreign vessels.

6. The average rate of wages to seamen engaged in the port of Nice is from 50 to 60 francs (40*s.* to 48*s.*) per month, exclusive of board, according to the destination of the vessel and length of voyage.

All engagements are made before the Consuls of the nations to which the seaman belongs. If French, before the "Commissaire de l'Inscription Maritime."

(Signed) AD. LACROIX, *British Consul.*

Nice, December 31, 1860.

Germany. (Hamburgh.)

1. British ships are not so prohibited; with this single exception that by the Elbe Navigation Act, the coasting-trade with goods or passengers, between one port and another of the River Elbe, is confined to the vessels of the Elbe-bordering States, so that British ships, like all foreign ships, are excluded from it.

2. No such differential dues of any description are levied on shipping at Hamburgh, except that, as regards the Stade dues payable to Hanover under the Elbe Navigation Act, Hamburgh ships are in so far entitled to a preference that the goods of Hamburgh citizens imported in them are duty free; whereas such goods if imported in any other ships are subject to the Stade dues. Certain articles of the produce or manufacture of Great Britain, the German States, Sweden, Norway, Belgium, Denmark, the United States of America, or Mexico (enumerated in Article VI of the Treaty between Great Britain and Hanover, dated July 22, 1844), if imported in ships of those States, pay only two-thirds of the Stade dues. Goods and ships of other countries must pay the full Stade dues on the same articles, and are consequently, as respects them, at a disadvantage.

3. There are no such variations at this port.

4. There are no such drawbacks or repayments.

5. There are no such regulations at this port.

6. The crews of ships under the Hamburgh flags must be engaged before the shipping master ("Wasserschout") of the port, who supplies them with a Book of Regulations, in which the name, age, &c., of the seamen are entered. This book is to be kept by the master of the ship, and returned to the seaman on his discharge, when it must be produced to and signed by the shipping master. A register is kept by the shipping master of all seamen engaged and discharged before him, with all particulars respecting them. Seamen taken on board before the crew is mustered must conform to the discipline of the ship, and if they will not go the voyage must give to the master forty-eight hours' notice thereof. The advance-money payable to the seamen is regulated by the length of the voyage. The master of the ship must give notice of desertions to the shipping master. In cases of disputes between masters and seamen, the shipping master must endeavour to arbitrate between them; but they may appeal to the shipping Alderman, and eventually to the Burgomaster. In criminal cases, the shipping master may arrest the offenders and deliver them over to the police. The regulations and discipline to which seamen on board Hamburgh ships must submit during the voyage are prescribed by Ordinances of the Senate, but are too long for insertion here.

Lodging-house keepers, and others, are forbidden to supply goods or money on credit to foreign seamen, or to take their clothes or effects as pledges; and such seamen are forbidden to pawn their effects, or incur debts, without leave of the master of their ship. Landlords, or others, giving credit to seamen, have no right to detain their effects, any such debts being considered illegal.

Every seaman engaged on board a Hamburgh ship must contribute to the Seamen's Pension Fund, which provides relief in cases of sickness or bodily injuries, and also secures pensions to the widows of deceased members. But

whenever the seaman ceases to belong to a Hamburgh ship, he thereupon forfeits all claim upon the fund.

The average rate of wages of Hamburgh and other non-British seamen, A.B., is 25 marks-courant (1*l.* 10*s.*) per month. Sometimes it is as high as 30 marks-courant (1*l.* 16*s.*) per month. British seamen, A.B., engaged at Hamburgh obtain 2*l.* 5*s.* per month.

(Signed) J. WARD, *Consul-General.*

Hamburgh, September 14, 1860.

Greece.

PATRAS.

1. British ships in Greece cannot take goods or passengers from one Greek port to another; but empty casks or other packages, and supercargoes and people to assist in loading, are tacitly allowed to go by them. British ships can take passengers for all foreign ports.

Turkish and Hanoverian vessels are by Treaty allowed to engage in the coasting trade.

2. There are no differential dues on British and national ships. Vessels from foreign ports, arriving in ballast, pay 4 leptas per ton ($\frac{1}{3}$ of a penny); in ballast and taking cargo, 8 leptas per ton ($\frac{2}{3}$ of a penny); with cargo and taking cargo, 12 leptas per ton (1*d.*).

Vessels arriving from Greek ports pay only half the above rates.

Ships under the Neapolitan flag pay ten times the above, there being no Treaty of Reciprocity between Naples and Greece.

Dues for permit of departure:—

	Dr.	Lept.
100 to 200 tons	3	0
201 to 300 tons	4	0
301 tons and above	5	0
Light dues:—		
51 to 100 tons	2	50
101 to 200 tons	5	0
201 to 300 tons	8	0
301 tons and over	10	0

One drachm equal $8\frac{1}{2}d.$

3. There are no variations.

Vessels arriving from Greek ports pay only half the dues they would pay if they came from foreign ports, as mentioned in the preceding answer.

4. There are no drawbacks or repayments to British, foreign, or national vessels, under any circumstance.

5. There are no regulations prejudicial to British vessels in particular; national ships pay the same fees as charged to foreigners, except Neapolitans.

6. Seamen are not subject to any regulation entailing trouble or expense. On being engaged, the Captain of the Port enters them on the vessel's muster-roll, and notes the rate of wages stipulated; this is done free of charge.

The rate of wages varies according to the freight obtainable; the average rate is from 36 drachms (or 26*s.*) per month to 56 drachms (or 40*s.*) for an able seaman; and the latter sum is paying at present.

In small craft and coasting-boats, sailors are paid by shares of the earnings, after deducting all expenses of food, dues, &c.; the usual division for a small vessel carrying six hands is into eight shares for the vessel, and twelve shares, or two shares each man, for the crew; in all twenty shares.

No greater share is given to the master or mate, as he is generally part-owner of the craft.

Vessels undertaking long voyages usually hire sailors by the month; but some ships also adopt the system of payment by shares of the net profit.

Patras, October 8, 1860.

PIRÆUS.

1. Except in regard to the coasting trade British vessels are not prohibited from bringing or taking any cargoes or passengers at the Piræus, from or to any part of the world. British vessels with part cargoes, from other than Greek ports, are at liberty, after their discharge, to continue their voyage with their part cargo to any other Greek port.

2. No differential shipping dues of any description, Imperial or local, are levied on national, foreign, or British ships, arriving or departing, as regards sailing vessels; but, as per reply to question No. 5, it will be seen that while British merchant steam-vessels pay the health, port, and tonnage dues, the merchant steamers of foreign and national steam companies are exempt.

3. No variations.

4. No drawbacks or repayments of any differential dues are, under any circumstances, made to foreign, national, or British vessels.

5. British, foreign, and national sailing-vessels, and isolated steamers, the latter not having any special Treaty with the Greek Government, pay alike. The above vessels furnish all the port charges in Greece, which were in 1859 as follows, viz.:—

	Drachms.	£	s.	d.
Health Office dues	42,082 =	1,502	18	7
Port dues	113,990 =	4,071	7	10
Tonnage dues	9,998 =	356	14	0
Total	166,070 =	5,931	4	5

Now the foreign and Greek Steam Companies, and even the Russian Steam Company, which as yet has no contract, and which should furnish one-half of the tonnage dues entering the Greek ports, pay nothing; a manifest injustice to national, foreign, and British sailing-vessels, and a loss to the Greek revenue.

6. All Greek merchant seamen are registered, and have to produce their register ticket when shipped or discharged, but they have otherwise no further calls on the part of Government.

The average rate of wages is for the Mediterranean 2*l.* per month, and for England 3*l.* per month.

(Signed) W. B. NEALE, *Consul.*

Piræus, October 13, 1860.

Hayti. (San Domingo.)

1. No.
2. No.
3. No.
4. No.
5. None.
6. There are no special laws or regulations affecting seamen, who are subject to the general laws, which affect all the inhabitants indiscriminately.

The rate of wages for long voyages is 16 dollars, or 3*l.* 6*s.* 8*d.*, per month.

For the coasting trade, 10 dollars, or 2*l.* 1*s.* 8*d.*, per month.

Day wages are at the rate of 1 dollar, or 4*s.* 2*d.*, per day.

(Signed) MARTIN T. HOOD, *Consul.*

British Consulate, San Domingo, October 20, 1860.

Honduras. (Comayagua.)

1. In no case, excepting when the ship's papers are not in order, or when she is not properly cleared at the Custom-house. Passengers are not allowed to embark without passports.

2. No differential dues are levied on British, French, Spanish, and Belgian vessels.

National coasting schooners pay 2 reals per ton. Coasting-vessels of other nations pay 4 reals per ton. Ocean vessels, whether national or foreign, if under 150 tons, pay 4 reals, and over this number, 1 dollar per ton. No difference is made in favour of vessels in ballast.

3. There are no variations in this respect.

The foregoing answers are applicable to the two ports within this Consulate of Honduras, Omoa and Truxillo.

4. No drawbacks or repayments are ever made.

5. None.

6. The crews of all merchant-vessels are under the jurisdiction of the Commandant or Governor of the Port. Seamen are exempted from all civil and military service. The average rate of seamen's wages is $12\frac{1}{2}$ dollars, for Omoa and Truxillo.

(Signed) EDWD. HALL.

Comayagua, January 30, 1861.

Italy.

GENOA.

1. British vessels may freely bring or take cargo or passengers at Genoa from or to any part of the world, even the coasting-trade being open to them.

2. The shipping-dues levied at Genoa on British vessels are precisely similar to those levied on national vessels. The dues consist of anchorage and sanitary fees. The anchorage fees for national vessels and those assimilated to them by Treaty, are at the rate of 30 centimes per ton, Sardinian measurement (every foreign vessel being gauged on arrival in the Sardinian States). All vessels not privileged by Treaty to be on the footing of national vessels are subject to pay anchorage-dues at 1 franc 30 centimes per ton, but every European nation has, I believe, Navigation Treaties with this country, as also have the United States of America.

No further fees are payable on a vessel's clearance, except 50 centimes paid on taking the permit to leave the harbour, which is a fixed charge for vessels of all flags.

No distinction is made between vessels in ballast and those carrying cargo or passengers.

3. No variation is made in the anchorage-fees, wherever the vessel may come from. The only variation is in the sanitary fees, and depends not upon the country to which may belong the place of her departure, but upon its geographical position. The following is a translation of the rule on the subject: Sailing vessels or steamers which have touched Asiatic or European Turkey, Syria, or the islands belonging to the Ottoman Empire, and those coming from America, the western coast of Africa (Morocco excepted), and also those coming from places beyond the Cape of Good Hope, pay 40 centimes per ton. All other vessels coming from foreign parts pay 20 centimes. Steamers coming from foreign parts (the places mentioned in the above paragraph excepted), pay 5 centimes.

4. No drawbacks or repayments of dues are made under any circumstances.

5. The only expense to which British vessels are put, which is not equally borne by national vessels, is a fee of 4 francs to the interpreter at the Health Office, and a fee varying from 2 francs 40 centimes to 7 francs 20 centimes to the gauger for measuring the vessel.

These charges are paid by all foreign vessels.

6. There are no local laws or regulations especially applicable to seamen. It would be impossible to form an average for any useful purpose of the rate of wages from this port, as the rate varies very greatly according to the agreement made between each individual master and seaman. Seamen will often go without wages, for instance, in order to work their passage home.

British Consulate, Genoa, September 15, 1860.

SPEZIA.

1. No. British vessels are not in any case prohibited from trading with the port of Spezia.

2. No such differential dues are levied on British vessels. No distinction is made between ships with cargo and those in ballast.

3. No variation in harbour dues, but some in the sanitary fees. Vessels touching on Turkish ports, or coming from Western Africa, America, or ports south of the Cape of Good Hope, paying 40 centimes per ton, instead of 20 centimes, levied on ships from other quarters.

4. None are made.

5. British ships are only liable to such charges as are borne by all other foreign vessels.

6. No peculiar laws or regulations exist in this port regarding seamen.

The average rate of wages is from 50 to 60 francs per month.

(Signed) CHARLES LEVER, *Vice-Consul.*

Spezia, September 16, 1860.

CAGLIARI.

1. No prohibition of this nature exists here.

2. There are no differential shipping dues of any description, Imperial or local, levied on national, foreign, or British ships, arriving or departing, either in ballast, or carrying cargo or passengers, except on vessels of such nations as have not Reciprocity Treaties with Sardinia. The anchorage dues on the first, are from 36 to 80 tons, 20 centimes per ton; from 81 tons upwards, 30 centimes per ton. The anchorage dues on the second, are 1 franc 30 centimes per ton, for vessels of all sizes. Steamers in regular periodical course of navigation pay anchorage once a month only, and are allowed 40 per cent. on their measurement for engine space. In addition to the above, all vessels pay 20 centimes per ton health office dues.

3. There are no variations whatever.

4. The last is also an answer to this.

5. No; there are no such regulations.

6. At this port, where it rarely happens that any but native seamen can be had, great inconvenience is experienced in all cases of emergency which require them. The accompanying document shows that the obligations to be incurred on shipping native seamen is almost equivalent to a prohibition; and cases have occurred where masters of vessels, not considering themselves justified in meeting these obligations have been obliged to sail dangerously deficient in number of crew.

The present average of wages may be taken at from 50 to 75 francs per month, according to quality of seaman and destination.

(Signed) WM. S. CRAIG, *Her Britannic Majesty's Consul.*

Cagliari, October 12, 1860.

Real Consolato di Marina.

Cauzione per Passaporto all' Estero.

Quest' oggi del mese di del mille ottocento , nel Real Consolato di Marina in

Nanti di noi Console di Marina alla direzione suddetta,—

E personalmente comparso il Signor , nativo di , domiciliato strada casa di professione , il quale all' oggetto di facilitare al marinaro di del luogo di , della classe 18 , matricolato in questa direzione al No. , il conseguimento di un passaporto per la destinazione di

si è obbligato, conforme si obbliga, di pagare di proprio tutte quante le spese cui potesse dar luogo durante il suo soggiorno all' estero, abbenchè scaduta la durata del passaporto medesimo, comprese quelle di malattia, qualora ammalasse e venisse curato all' estero; ed in generale, tutte le spese in genere, non escluse quelle di rimpatrio cagionate per causa di suddetto individuo ed in dipendenza

dell' ottenuto passaporto in virtù della presente le quali sotto qualsivoglia riguardo o titolo dovessero o potessero cadere e pregiudizio a carico della Cassa degl' Invalidi, sottomettendosi perciò alla escussione militare, e rinunziando a qualunque benefizio dalla legge introdotto a favore delle sigurtà.

E previa lettura e conferma si è con noi sottoscritto.

Il Console di Marina.

(Translation.)

Royal Navy Consulate.

Caution for a Passport to a Foreign Country.

This day of the month of , one thousand eight hundred , in the Royal Navy Consulate in ,

Before us, Navy Consul in the above-mentioned office,—

Personally appeared, Mr. , a native of , residing street, house, by profession , who, for the purpose of facilitating the seaman , of , of the place of , of the class of 18 , registered in this office at No. , in obtaining a passport for the destination of , has bound himself, as he hereby binds himself, to pay out of his own property whatever expenses may be incurred for the said seaman during his residence abroad, even after the expiration of the term of the passport, inclosing those of sickness, should he be taken ill and cured abroad; and in general, all expenses of a similar nature, not excluding those of returning him to his country, incurred on his account, and resulting from the passport granted under these presents, which, in whatever respect, or under whatever title, may happen to prejudice or fall to the charge of the Invalids' Fund, subjecting himself to military execution, and renouncing the benefit of the law introduced in favour of securities.

Being previously read and confirmed, we sign our name.

Royal Navy Consul.

CARRARA.

1. Not prohibited.
2. Government dues on vessels of national flag.—For each vessel:—

	s.	*d.*
From 1 to 9 tons burthen	0	$5\frac{3}{4}$
„ 9 to 13 „	0	$7\frac{1}{2}$
„ 13 to 20 „	0	$11\frac{1}{2}$
„ 20 to 25 „	1	9
„ 25 to 33 „	2	6
„ 33 and upwards, tons burthen	6	7

Foreign flag.—For each vessel:—

From 1 to 9 tons burthen	0	$11\frac{3}{4}$
„ 9 to 13 „	1	3
„ 13 to 20 „	1	11
„ 20 to 25 „	3	6
„ 25 to 33 „	5	0
„ 33 and upwards, tons burthen	13	2

3. There are no variations.
4. No drawbacks allowed.
5. There are no regulations that especially affect British ships, or any other flag, nor any expense not equally borne by all flags.
6. There are no local laws and regulations affecting seamen; their wages vary much; they are generally paid a given sum for the voyage. Passengers are not charged anything.

Carrara, September 29, 1860.

NAPLES.

1. There is no prohibition to British ships bringing or taking passengers or merchandize to any part of the world, save to the ports of this kingdom (coasting trade). British ships chartered in Naples to load oil or other cargo in any port of the Kingdom of Naples, are, however, allowed to take on board in Naples empty casks or other necessary material to complete the cargo at the port of shipment.

2. None that I can ascertain.

3. There are no differential dues or charges of any kind on British shipping arriving from or clearing for the United Kingdom, or any of her colonies, or any foreign port.

4. None.

5. None.

6. There are no specific laws or local regulations affecting seamen. The common law of the country is applicable to them as to others. The monthly wages of Neapolitan seamen may be held to vary from 45*s.* to 55*s.* per month.

(Signed) EDW. WALTER BONHAM,

Naples, October 30, 1860. *Her Britannic Majesty's Consul.*

PALERMO.

1. In no case, except from one port to another of the Kingdom of the Two Sicilies, in which case the prohibition holds good, both as to cargo and passengers.

2. No differential duties levied on national or British ships arriving or departing; but other foreign ships pay according to their Treaties. The amount levied on national and British ships are about 2*d.* per ton for tonnage duty. If the ship be under 200 tons, she pays 2*s.* 8*d.* on entering, and the same on clearing out, and 2*d.* per ton for light-duty. If the ship be above 200 tons, she pays tonnage-duty as above, and 5*s.* 4*d.* besides, both on entering and clearing out. If the ship be in ballast, and loads in port, she pays tonnage and light-duties as above; but if she makes no operation, but comes and goes empty, she pays only entrance and clearance dues as above.

3. No variations in any case.

4. No drawbacks or repayments of differential dues are ever made.

5. None at all.

6. No such laws or regulations exist. The monthly rates of wages are as follows:—

	Mediterranean.			Ocean.		
	£	*s.*	*d.*	£	*s.*	*d.*
Mates	5	13	4	6	16	8
Seamen	2	16	8	3	0	0

(Signed) JNO. GOODWIN, *Her Britannic Majesty's Consul.*

British Consulate, Palermo, September 21, 1860.

MESSINA.

1. British ships are in no case prohibited from bringing or taking cargo or passengers at the port of my residence from or to any part of the world. The coasting trade is exclusively reserved to national vessels.

2. No differential shipping-dues of any description are levied on national or British ships, or on foreign ships having Treaties of Reciprocity with the Two Sicilies, arriving or departing. Differential shipping-dues are levied on vessels belonging to countries which have no Treaties of Commerce, and also on vessels which have Treaties for the direct trade only, when employed in the indirect trade. They are as follows:—

Tonnage and light dues, at all ports in the Two Sicilies, the port of Messina excepted, 2*s.* 4½*d.* per ton, French measurement; entry inwards and

outwards, vessels of 200 tons and under, 5*s.* 6*d.*; of 201 tons and upwards, 11*s.*; bill of health, vessels under 200 tons, 2*s.* 1*d.*; of 201 tons and upwards, 4*s.* 2*d.*

3. There are no variations in such dues dependent on the ships arriving from or clearing out for the United Kingdom or its Colonies, or to or from foreign countries or their Colonies. Foreign ships belonging to countries which have no Treaties of Reciprocity, see answer to Query 2.

4. No drawbacks or repayment of any such differential dues are made under any circumstances to foreign vessels which have no Treaties of Reciprocity.

5. There are no regulations specially affecting British ships, cargoes, crews, or passengers, entailing upon such ships when in port extra charge or expense, not equally borne by national or foreign vessels.

6. Merchant seamen cannot go to sea without a license from the captain of the port, nor can they serve on board a foreign ship without a special permission from that authority. There is a school of navigation where young men, after due training, undergo a nautical examination, and, if found qualified, are furnished with certificates of competency for the coasting trade or long-sea voyages, as the case may be. Average rate of wages from 40*s.* to 50*s.* per month.

(Signed) JOSEPH RICKARDS, *Vice-Consul.*

Messina, September 20, 1860.

Mexico.

VERA CRUZ.

1. British vessels can bring merchandize and passengers from any part of the world to such ports of Mexico as are open to foreign trade, with the same facilities outwards. But they are not permitted to trade coastwise, except for the purpose of receiving passengers, specie, or produce.

2. Foreign vessels on entering the port are subject to the following charges:—Tonnage, 1 dollar per ton; light dues, 25 dollars; pilotage, 25 dollars; pilotage on the coast, 12 dollars.

National vessels pay no tonnage, but they are subject to:—Light dues, 6 dollars; pilotage, if under 150 tons, 12 dollars; pilotage, if above 150 tons, 25 dollars.

3. There are no variations when trading with the Colonies of the mother country.

4. There are no drawbacks or repayment of any kind.

5. None whatever.

6. There are no regulations affecting seamen, and wages are much the same at Vera Cruz as at Havana, New Orleans, or any other tropical port.

(Signed) F. GIFFARD, *Her Majesty's Consul.*

Vera Cruz, November 30, 1860.

TAMPICO.

1. They are not prohibited, with the exception of the coasting trade, from which all foreign vessels are excluded.

2. All foreign merchant-vessels arriving at this port have to pay a tonnage duty of 1 dollar per ton (burgos measurement), and, besides, for pilotage and anchorage 25 dollars; lighthouse dues in and out 25 dollars; bill of health 10 dollars.

Mexican vessels are exempted from tonnage duty, and only pay for light-house dues in and out, 6 dollars; pilotage and anchorage under 150 tons, 10 dollars; pilotage and anchorage over 150 tons, 25 dollars; bill of health, 4 dollars.

Note.—The proceeds of the bills of health are for the hospital of this city, where seamen of all nations are admitted gratis. Foreign mail-vessels coming merely with or for mails and passengers would be exempted from tonnage dues.

3. There are no variations.

4. There are no drawbacks or repayments made under any circumstances.

5. There are not.

6. There are very few seamen at this port, and the law merely requires them to be registered, as they are liable to be called upon to serve in Mexican ships of war.

The average rate of seamen's wages at this port is from 20 to 25 dollars per month (dollars at 4*s.*).

(Signed) E. M. GIFFARD, *Her Majesty's Acting Consul.*

British Consulate, Tampico, November 14, 1860.

Monte Video.

1. British ships are not prohibited from bringing or taking passengers or cargo from or to any part of the world.

2. No differential shipping dues of any kind are levied on British ships arriving or departing, whether the vessels arrive with the intention of remaining or whether they enter merely in transit.

3. No such differential dues as those alluded to exist.

4. No differential dues existing, there is no question of drawbacks or repayments.

5. There are no regulations affecting specially British ships, cargoes, crews, or passengers, when in port, and which entail on them any charges not imposed equally on national and foreign vessels.

6. With respect to native and foreign seamen the Captain of the Port is empowered to settle their differences with the masters of their vessels, in the case of the conditions of their contracts not being fulfilled, or in the event of a refusal by the masters to pay their wages, in which cases he summons the masters to appear before him, and take such measures as by the regulations of the port he is held to be entitled to adopt.

In point of practice, however, such differences between foreign masters and seamen are settled by their respective Consuls.

The Captain of the Port, moreover, prohibits any seaman on board a foreign merchant-ship from engaging himself on board any other such ship unless he be the bearer of a certificate made out by the master with whom he was serving, the certificate being countersigned by a competent officer in the employ of the Captain of the Port.

The master of any vessel who engages a seaman not furnished with such a certificate is liable to a fine of 25 current dollars, or about 4*l.* 4*s.* in English money.

The average rate of wages of native seaman is about 14 dollars, or about 2*l.* 16*s.* 6*d.* sterling, a-month.

The average rate of wages of foreign able seamen is about 3*l.* sterling a-month.

The average rate of wages of foreign ordinary seamen is about 2*l.* 10*s.* sterling a-month.

(Signed) W. G. LETTSOM.

Monte Video, January 2, 1861.

Morocco. (Tangier.)

1. No.
2. None.
3. None.
4. None.
5. None.

6. The only regulation affecting Moorish seamen is that they are required to obtain the authority of the local port authorities before engaging themselves on board British or foreign vessels.

The wages of a Moorish seamen are about 2*l.* sterling a-month.

(Signed) J. H. DRUMMOND HAY.

Tangier, October 10, 1860.

Navigator's Islands.

1. NO prohibitions whatever.

2. The only dues levied here are harbour dues on British and foreign ships, namely, 6 dollars for a three-masted vessel and 4 dollars for two-masted vessels.

3. No variations.

4. None.

5. None.

6. Seamen deserting from their ships are to be apprehended, and rewards varying from 10 to 25 dollars, according to the distance, are to be paid for their apprehension; but if the seaman is not apprehended till after the ship sails, he is fined 10 dollars or set to work.

Any seaman found in the streets after 9 o'clock at night, shall be made a prisoner, and sent on board next morning, he paying 2 dollars. Seamen are at liberty to remain on shore all night, provided they remain in a house, and not go out into the streets.

In case of mutiny, the Chiefs are not to interfere, unless called upon by the Consul and Captain for assistance.

Sick seamen are to be left in charge of the Consul without any extra charge but what is required by the Consul.

The following are the rates of wages, namely, 10 to 12 dollars for ordinary seamen, 15 to 18 for able seamen, 20 dollars for cook and steward.

(Signed) JOHN C. WILLIAMS,
Her Britannic Majesty's Consul.

Apia Upolu, August 19, 1861.

Netherlands.

AMSTERDAM.

1. In no case.

2. None whatever.

3. None.

4. None.

5. None.

British ships are on the same footing in every respect as Dutch and foreign.

6. None.

The average rate of wages is from 22 to 26 florins, equivalent to 36*s.* 8*d.* to 43*s.* 4*d.* per month.

Amsterdam, November 10, 1860.

ROTTERDAM.

1. British ships are not prohibited from bringing or taking cargo or passengers at this port from or to any part of the world.

2. No differential shipping dues, either Imperial or local, are levied on either British, foreign, or national vessels, coming to or proceeding from this country with cargo, passengers, or in ballast.

3. There are no variations in the shipping dues levied in this country, dependent on the ships arriving from or clearing out for the United Kingdom or its Colonies, or to or from foreign countries or their Colonies. This is the policy of the mother country, but it must be borne in mind that the commercial policy of her Colonies is still based upon differential dues and duties.

4. As there are no differential dues, there are, of course, no drawbacks or repayments under any circumstances whatever.

5. There are no regulations specially affecting British ships, cargoes, crews, or passengers, entailing expenses not equally borne by national or other vessels.

6. Seamen are shipped and discharged, and agreements are drawn up before the Harbour-master of the port, and such agreements are drawn up in much the same form as in the United Kingdom.

The responsibilities of the captain and officers, and the obligations devolving on the crews, are very similar to those resting on British masters and seamen. Seamen who ship in a capacity for which they are not competent are responsible for the consequences of their ignorance. Deserters can be arrested and brought on board at their own expense. A mate who engages himself for a voyage which he has never made before, without apprising the captain of the circumstance, incurs a penalty equal to the whole amount of his wages.

If the voyage for which a crew has been engaged is cancelled, the crew are entitled to one month's wages, or where the agreement is by the voyage, one-fourth of the amount agreed upon. Should the voyage have been already begun, the crew are entitled to all their expenses home, and double the amount agreed upon by the muster-roll.

The crews and officers are entitled to their wages after every voyage. They are not entitled to receive their wages when the vessel has been captured or totally wrecked, but are not called upon to refund the amount previously advanced. If the wreck is not total, the officers and crew are entitled to claim their wages out of the proceeds of the wreck.

Every seaman falling ill, or getting injured or hurt in the service of the ship, continues to receive his wages, and in the event of injury is entitled to damages, the amount of which will be decided by the Judge, should there be any difference of opinion. The incidental expenses and medical attendance are for account of the ship, if the disease or injury has been received in the service of the vessel.

During the voyage the captain is not permitted to pay more than one-third of the wages due.

In the event of cruelty or mal-treatment by the captain, the crew are entitled to obtain their discharge at a foreign port, through the assistance of the Netherland Consul.

The captain and owners are called upon to account for the wages and effects of the deceased seamen to the relatives and heirs.

The crew are compelled to discharge the cargo if required to do so, and are required to make a declaration upon oath three days after the discharge of the cargo.

A register of penalties and punishments requires to be kept on board, in which all cases of insubordination must be duly entered. This register must, on arrival of the vessel in port, be delivered to the District Judge. The enactments against desertion, insubordination, and disobedience, are severe.

At the request of one-third of a crew, a survey must be held regarding the quality of the provisions.

Rotterdam, September 26, 1860.

SURINAM.

1. British ships are allowed to bring or take cargo or passengers at the port of Surinam from or to any part of the world.

2. The shipping dues are the same on all vessels entering the port. The only differential duties are those on vessels coming from a country with which there is no reciprocal Treaty of Commerce, when, instead of 3 per cent. import duty, there would be charged 6 per cent., and instead of 5 per cent. export duty there would be charged $7\frac{1}{2}$ per cent.

3. There are no variations in the dues on vessels arriving from or clearing out for the United Kingdom or its Colonies, or to or from foreign countries or their Colonies.

4. The only differential dues which are made is that upon vessels carrying coals, which return or leave for another port in ballast. To such vessels the tonnage money is not charged, which is 1 guilder 50 cents (2*s.* 6*d.*) per ton.

5. British ships enjoy the same rights and privileges as national vessels, with exception that they are obliged to stop at Fort Amsterdam to be visited by an officer of health, and also to receive a permit from the commanding officer to be allowed to sail up the harbour, for which a fee of 3 guilders (5*s.*) is paid to the former, and 1 guilder (1*s.* 8*d.*) to the latter. The extra charges would not be so

much felt as the delay it causes ; vessels frequently losing more than twelve hours by the detention, especially when the flood tide is well spent.

6. Article 35 of the Harbour Regulations is as follows :—

"No master or captain of a vessel shall be allowed to discharge or cause a discharge to be given to any of his crew, or to engage any one in his employ, without knowledge and leave obtained from the Commissary of Police, under penalty of 50 guilders, besides the further suit which may be brought against them arising from acting contrary to this Act."

Article 61 of the Port Regulations says :—

"All vessels and ships arriving at Paramaribo will be responsible for any fines and costs which may be incurred by the crew belonging to the same, or otherwise. This responsibility will refer—

"1. To all trespassers of police, and the fines and costs to be incurred on that account.

"2. To all costs which may be due or become due to the Military Hospital for any person taken up in the same.

"3. To all fines and penalties to be incurred by virtue of these Regulations by any person belonging to the crew."

The wages of seamen average at this port of Paramaribo, Surinam, from 30*s.* to 50*s.* per month.

(Signed) D. C. MUNRO.

Paramaribo, Surinam, October 15, 1860.

New Granada.

PANAMA.

1. British vessels are considered as and treated exactly upon the same footing as New Granadian vessels, and are not prohibited by the laws of New Granada from bringing or taking cargo or passengers to or from any port. Cargo, however, brought to the Isthmus direct from the United States in the Atlantic, can, by the American laws on coasting-trade, be carried to California in American vessels only, and *vice versâ.*

2. No differential dues are levied.

3. None.

4. None.

5. None.

6. The laws affecting seamen are at present very defective ; and the matters relating thereto, which should come under the cognizance of the Captain of the port, are generally arranged by the Consul of the nation to which a vessel may belong ; facilities being afforded by the local authorities for the arrest and punishment of deserters, &c.

The average rate of wages is from 3*l.* to 4*l.* per month in British vessels, and 4*l.* to 5*l.* in American.

(Signed) CHARLES J. BIDWELL, *Acting Consul.*

British Consulate, Panamá, December 4, 1860.

CHAGRES AND COLON.

1. No British ship can take cargo coming from the Possessions belonging to the United States on the Pacific to any port in the United States, as it would be considered an infringement of the laws relating to the coasting-trade.

2. This being a free port no national dues are levied. Light-dues and wharfage are levied indiscriminately by the agents of the Panamá Railroad Company, excepting on vessels of war.

3. None.

4 and 5. No charge whatever upon ships or merchandize, being a free port.

6. Seamen are subject to the Civil law ; the old Spanish Marine Code having been abolished.

Wages of seamen serving on board of American ships, about 15 dollars per

month; serving in Colonial ships, 13 dollars per month; serving in Granadian ships, 12 dollars per month.

(Signed) T. R. COWAN, *Her Majesty's Vice-Consul.*

Colon, New Granada, December 1, 1860.

Nicaragua. (Chinandega.)

1. British, in common with ships of all nations, are allowed to bring and take passengers and cargo in the port of Realejo, from or to any part of the world.

2. Merchant-vessels of whatever nation, except the steamers of the Panamá Railroad Company arriving in the port of Realejo with cargo or passengers, or in ballast, are required to pay 10 cents per ton register, 3 dollars per foot (draft) pilotage, and 50 cents for license on stamped paper. If the vessel receives cargo in the port she pays, in addition to the above, 5 dollars for clearance, and 7 dollars 75 cents for licenses and certificates on stamped paper, in the currency of the United States of America.

3. The only variation made at the port of Realejo, in the collection of differential dues, is made in favour of the steamers of the Panamá Railroad Company. They do not take a pilot nor pay port-dues of any description; but they bring a semi-monthly mail without compensation.

4. There is no regulation of the port of Realejo under which drawbacks or repayments of differential dues can be claimed.

5. British ships are not distinguished from ships of other nations in the regulations of this port.

6. The State of Nicaragua has neither ships nor seamen, nor are there laws or regulations respecting seamen. Occasional deserters are the only seamen remaining on shore; such usually ship on coasting-vessels, at an average of " dollars, United States' currency, per month.

(Signed) GERALD RAOUL PERRY.

British Vice-Consulate, Chinandega de Nicaragua,
October 20, 1860.

Peru.

CALLAO.

1. A Decree was given by the Peruvian Government, prohibiting any vessel from bringing to the ports of Peru, Chinese coolies, but on a representation being made by the farmers that they required hands permission was granted for the importation of 2,000 Chinamen.

2. Two rials, or 1*s.*, per ton is recovered from all vessels, both Peruvian and foreign, when they arrive or sail with cargo; when in ballast, they only pay 8 dollars, or 32*s.*, if coming from a foreign port, and 6 dollars, or 24*s.*, if from a port in Peru. Peruvian vessels under 200 tons do not pay any tonnage-dues.

3. None.

4. None.

5. None.

6. The regulations of the port do not allow seamen to be on shore without a certificate of leave or discharge from the master of the vessel to which they belong or have been discharged from, and they must ship again within twenty days after their discharge. Their certificates of discharge are obliged to be stamped by the Intendant of Police and Captain of the Port, without which requisite the boarding-houses for seamen are not allowed to receive them into their houses. Unfortunately, none of these regulations are attended to, but, on the contrary, seamen are continually kidnapped by the boarding-house keepers when on shore, and on many occasions have been taken out of their vessels by agents of the same parties.

The wages paid in this port for seamen have been as high as 10*l.* per month, and not lower than 4*l.*, but the average for the last six months has been about 5*l.*, for what are termed sea-going voyages. Those men shipped solely to th Chincha Islands and back to Callao get always 4*l.* per month.

The boarding-house keepers are not allowed to claim from the seamen, during their stay with them, more than 20 dollars, or 4*l.*

(Signed) JOHN BARTON, *Her Britannic Majesty's Consul.*

British Consulate, Callao, October 24, 1860.

ISLAY.

1. Nil.
2. Nil.
3. Nil.
4. Nil.
5. Nil.
6. Average rate of wages from this to Liverpool, when men are engaged, which is very seldom, 3*l.* 10*s.*

Islay, October 25, 1860.

Portugal.

LISBON.

1. British vessels are not prohibited from bringing or taking cargo to and from any port in the world, except to or from the ports in the Kingdom and the Colonies belonging to Portugal, all which is considered as coasting trade, which is restricted to Portuguese vessels only ; but there is no restriction in conveying passengers to and from those Colonies in Portuguese vessels, or in British vessels touching at any of the ports.

2. There are no differential shipping-dues of any description levied on British or foreign vessels having reciprocal Treaties with Portugal, which are not equally levied in amount on national vessels. All vessels belonging to foreign nations which have no Treaties with Portugal pay double the amount of port-dues paid by national vessels, as set forth in the accompanying Table, in which are included light dues. National vessels entering and sailing in ballast pay no tonnage-dues, nor do vessels belonging to foreign nations having Treaties with Portugal, which places them on the footing of national ships.

3. There is no variation in the tonnage-dues dependent on ships arriving from or clearing out for the United Kingdom or its Colonies, or to and from foreign countries or their colonies.

4. No drawbacks or repayments of any differential duties are made or autho rized under any circumstances to national, foreign, or British vessels.

5. Goods imported direct in British, and all foreign ships from nations t which such vessels do not belong, are liable to the payment of a differential duty thereon of 20 per cent. ; and in like manner, goods imported from countries of which countries they are not the produce or manufacture, are also liable to the differential duty of 20 per cent.

6. There are no regulations otherwise affecting British ships, cargoes, crews, and passengers, entailing upon them, when in port, any extra charge or expense not equally borne by national vessels.

No Portuguese seamen are allowed to engage in any capacity on board a national or foreign ship without being furnished with a "matricula," or permission granted by the Captain of the Port. The average rate of wages for able-bodied seamen is 2*l.* 5*s.* per month.

(Signed) WM. SMITH.

British Consulate, Lisbon, September 26, 1860.

Table of Tonnage Dues.

	Duties per Cubic Mètre.	
	Portuguese Vessels.	Foreign Vessels.
	Reis.	Reis.
Vessels arriving with foreign goods:—		
Sailing from any of the ports of the Kingdom	225	450
Sailing with an entire cargo of salt, flour, oil, wine of the country, or at least with two-thirds of her bulk with such goods ..	45	90
Sailing with an entire cargo of goods manufactured in the country, or of national produce, or even foreign, already cleared for consumption	135	270
[N.B.—Vessels sailing with cargoes of grain of national produce with less than two-thirds of their tonnage, 2 mètres of their tonnage shall be exempt from the payment of tonnage dues for every 828 litres of the cargo on board.]		
Remaining space :—		
For each cubic mètre of goods of national produce or industry, or even foreign, already cleared for consumption . ..	135	270
Arriving in ballast :—		
Vessels sailing with an entire cargo of goods of national produce or industry, or even foreign, already cleared for consumption ..	90	180
Remaining space :—		
For each cubic mètre of national goods, not being salt, grain, flour, oil, or wine	90	180
For each cubic mètre of foreign goods	225	450
Vessels arriving on speculation, and obtaining such entry according to law :—		
Sailing with part of their cargo, and having completed it with salt, grain, flour, oil, or wine of national produce	45	90
Coasting trade :—		
For the first voyage the vessel makes in each year	270	

OPORTO.

1. No.

2. The dues levied at this port on British vessels are the same as those levied on Portuguese ships, in conformity with Article V of the Treaty of the 3rd July, 1842.

The coasting trade is exclusive for Portuguese vessels.

3. None.

4. British vessels, when sailing from one Portuguese port to another, and loading, at the latter, a full cargo of Portuguese produce, are entitled to a drawback of half the amount of the tonnage dues paid at the first port. In similar cases, Portuguese vessels are also entitled to said drawback.

5. The cargoes of British vessels entering this port, being the produce of other countries than Great Britain, are liable to an additional duty of 20 per cent.

6. Seamen's wages at this port vary according to the season, and are from 32*s.* to 50*s.* per month of thirty days.

Oporto, September 28, 1860.

Extract from the Commercial Code relative to Seamen.

Article 1,449. All officers and men belonging to the crew are bound to aid the master in case of an attack on the ship, or in case of any accident occurring of any kind whatsoever.

Art. 1,468. Any individual belonging to the crew falling sick during the voyage in the performance of his duty on board, or being wounded or mutilated in case of an attack on the vessel, shall be attended to at the expense of the ship, and in case of mutilation shall be duly indemnified.

Art. 1,487. The master is prohibited to advance to the crew more than one-fourth of the amount of their wages.

Art. 1,488. In case of dismissing any of the crew (for legal causes), the captain is bound to give the dismissed an order on the owners for the amount of wages due.

Art. 1,489. The officers and seamen cannot sue the captain, or bring an action against him, before the conclusion of the voyage. However, if the vessel is in a foreign port, the mate or seamen who may have been ill-used, or that may not have had sufficient food, may demand to be discharged before the Consul or a Magistrate.

Art. 1,491. The voyage being concluded, the crew, if required by the master, are bound to unload the ship and bring her to her moorings. They are also obliged to present themselves at the Tribunal of Commerce (if required) within three days after the vessel has been unloaded, for the purpose of signing protest, &c.

Art. 1,493. The officers and seamen, after having performed all that is specified in the foregoing Articles, may be discharged and paid off within twenty-four hours.

Analysis of Local Laws and Regulations affecting Seamen.

1st. Every officer and seaman is obliged to go on board the ship, and take his clothes and effects, at the time fixed by the master.

2nd. During the night they must remain on board, unless permission to sleep on shore has been obtained from the master.

3rd. The seamen's effects cannot be taken from the vessel until they have been examined by the master.

4th. The seamen must obey the master and other officers in all legal orders, and abstain from drunkenness.

5th. The seamen must not desert, on pain of forfeiting all their wages.

6th. They must conduct themselves well.

7th. They are bound to conform with the dispositions contained in the Commercial Code.

8th. The mate must make a declaration of having, or not, been employed in the same capacity before.

9th. The mate must see that the cargo shipped is properly stowed in the hold, and is answerable for damages.

10th. The mate must remain on board night and day when the vessel is loaded, and take care that the hatchways are closed during the night.

11th. The master may dismiss, without payment of wages, any individual that engages himself in a class superior to his abilities; but he may retain him on board until his capacity is proved at sea, and at the conclusion of the voyage pay him such wages as he thinks him worthy of.

MADEIRA.

1. British ships are prohibited by the Portuguese navigation laws only from bringing or taking cargo at Madeira from or to Portuguese ports.

2. No differential shipping dues of any description, Imperial or local, are levied on national, foreign, or British ships arriving at or departing from Madeira.

3. None.

4. None.

5. None.

6. There are no special local laws and regulations at Madeira affecting seamen.

The average rate of wages of native seamen is about 2*l.* 5*s.* per month. No other seamen are procurable at this port.

Madeira, October 31, 1861.

ST. MICHAEL'S.

1. British ships at this port are permitted to take cargo and passengers from or to any part of the world, excepting to or from any of the ports in the Portuguese dominions, and this prohibition applies to cargo only.

2. No differential shipping dues of any description are levied; and ships of foreign nations are on the same footing as national vessels.

3. There being no differential shipping dues, there are no variations of such dues.

4. As there are no differential dues, it follows that there can be no drawbacks or repayments of any such dues.

5. There are no regulations specially affecting British ships, cargoes, or passengers; port charges on all vessels, whether foreign or national, are alike.

6. There are no regulations affecting British seamen.

Portuguese seamen are not allowed to engage on board of foreign vessels without first giving notice to the Captain of the Port; and no seaman is permitted to engage on board of a Portuguese vessel until he can show a certificate of servitude.

The average rate of wages for able-bodied seamen is equal to 45*s.* sterling per month.

(Signed) SAMUEL VINES,
Her Britannic Majesty's Consul.

British Consulate, St. Michael's,
October 11, 1860.

CAPE VERD ISLANDS.

1. British vessels are prohibited from carrying cargo from hence to any other part of the Portuguese dominions, but passengers are permitted to be conveyed in British vessels. Cargo can only be transported between this place and any other part of the Portuguese dominions by vessels bearing the national flag.

2. No dues of any description are levied upon ships arriving at or departing from this port. The only port expenses to which vessels are subjected here, consist in fees levied as emoluments to Customs and Health officers. These fees amount to 9$320 (2*l.* 1*s.* 5*d.*), and, over and above this charge, each ship is subject to a further expense of 600 reis (2*s.* 8*d.*) per diem until she is discharged, but on such days when circumstances prevent her discharging, then 300 reis (1*s.* 4*d.*) only is levied.

3. The reply to this question is involved in the preceding answer.

4. The preceding remark also applies to this query.

5. There are no extra expenses entailed upon British ships bringing or taking away cargoes or passengers that are not equally borne by national or foreign vessels.

6. There are no especial local laws affecting seamen at this place. The regulations which govern the merchant-seamen's service here, are those instituted by the "Codigo Commercial" of Portugal, which provides that seamen, upon their engagement to serve on board ships, shall sign an agreement upon a form sanctioned by the Commercial Code, which form contains ten rules, referring principally to discipline; and there are also transcribed upon it seven Articles of the Portuguese Commercial Code, whereby it is made obligatory on the part of the officers and crew to aid the captain in case of an attack by pirates, or any other disaster affecting the ship or cargo. An indemnity is provided for any of the crew who may be injured in the service of the ship.

The captain is not authorized to advance more than one-fourth of the wages during the voyage.

The mode of payment of wages of a seaman legally discharged during the voyage is pointed out, viz., by an order upon the owner for the amount due.

The officers or crew cannot bring an action at law against the captain before the voyage is completed; but if there should be any just cause for complaint against the captain, as soon as the vessel arrives in a safe port, the agreement might be annulled, but with the sanction of the Consul or Magistrate of the place.

The crew, at the end of the voyage, have to discharge the ship, dismantle her if necessary, and conduct her to the anchorage.

The crew have to keep a journal of the proceedings at sea, and, within three days after the ship is discharged, prove the truth of it on oath, either separately or conjunctively with the captain, when they would be discharged, and must be paid off within twenty-four hours afterwards.

The average rate of wages at this port for mates is 2*l.* per month; for seamen, 1*l.* 2*s.* per month.

(Signed) THOMAS MILLER,
Her Britannic Majesty's Consul.

British Consulate, St. Vincent, Cape de Verd Islands,
October 19, 1860.

Prussia.

DANZIG.

1. None.

2. Vessels of privileged nations, as British, Dutch, Danish, Belgian, Swedish, Norwegian, ships of German States, Russian, Portuguese, Neapolitan, and North Americans pay the same harbour-dues as the national ships; 5½ silvergroschen per last ballast in, and the same on going out; and 11 silvergroschen per last cargo in, and the same on going out.

Vessels of not-privileged nations, as French, Spanish, Sardinian, and South Americans, pay two-fold the harbour-dues, and 2 dollars per last flag-money in; and 1 dollar per last flag-money out.

Coasting trade entitled nations, as British, Dutch, Swedish, Norwegian and Hanoverian, pay for vessels of 25 lasts burden two-thirds, ships arriving from Eastern ports, as Pillau and Memel, pay one-third of the harbour-dues; ships above 25 lasts burden pay the full amountof harbour-dues.

3. None.

4. Not any.

5. Not any.

6. Average amount of wages this year, for a Mate, 26 thalers; Able Seamen, 13 thalers; Ordinary Seamen, 9 thalers; Boy, 6 thalers per month.

Inclosed is copy of existing Port Regulations, in which no material alteration has taken place since its date, Berlin, January 30, 1821.

(Signed) H. R. PLAW.

British Consulate-General, Danzig, September , 1860.

Police Regulations for the Port and Inner Navigation of Danzig.

We, Frederick William, by the grace of God, King of Prussia, &c., &c., &c., make known and hereby publish, that We have found it expedient to enact regulations for the government of shipmasters coming into the roads and port of Danzig. We therefore ordain as follows:—

Directions to the Shipmaster on arrival in the Roads or entering the Fairwater.

§ 1. So soon as a vessel comes into the roads of Danzig, the master, if he intends entering Fairwater, must wait for a pilot, and not run in without his assistance, on pain of being fined 2 dollars for every ten lasts the ship measures. In a case of the utmost necessity, viz., that the master runs evident risk of losing ship, cargo, and crew, he must then hold a consultation with the mate, boatswain and carpenter, or another experienced seamen in lieu of any of these, and if, after mature deliberation, it be judged necessary for the preservation of the whole, he is then allowed to enter the harbour without a pilot, but in this case he is responsible for all damage done to any other vessel or goods, or to the Fairwater.

The investigation whether such case of necessity really existed shall be made by the Presidency of Police, with the assistance of the Pilot-Commodores and other qualified persons, and the decision belongs to the Court of Commerce and Admiralty.

§ 2. Should tempestuous weather or other causes prevent the pilots from going out, the Master has to observe the following signals:—

(1.) The pole erected on the outward point of the Easter pier with a barrel at the top; this will show him, even in case of the pier being covered by the high sea, the point where the same lies, and thus where he has to run in;

(2.) The signal to be made by a red flag from the Wester pier; this he must in so far notice as to hold his course to that side to which the flag is inclined, and when the flag is raised perpendicular, he is then to steer straight forwards. If no such signals are made with the flag, the master must not enter, but cast anchor, or keep at sea.

§ 3. The master is bound to answer most conscientiously the questions put to him by the pilot concerning the state of the vessel or crew, and everything relating thereto, on pain of being fined 2 dollars for every ten lasts the ship measures.

§ 4. Should the master be directed to any place to ride quarantine, on account of infections, sickness, or suspicious goods, he must immediately hoist a yellow flag. In that case he must neither change his berth, nor have any communication whatever with other vessels or boats, nor with the inhabitants on shore, without permission in writing from the Pilot-Commodore.

Every trespass against these orders shall meet the severest corporal punishment, which, according to the nature of the case, to the actual danger of infection by breaking the quarantine, and to the extent of the damage occasioned, shall be extended to six months' confinement in the House of Correction or in the Fortress, and even to decapitation.

Besides, the Quarantine-Inspectors shall be authorised to prevent the prohibited communication by every forcible means, according to the resistance made, and in extreme cases even by taking the life of the offender.

These regulations shall be expressly made known by the Pilot-Commodore, to the master and crew, immediately on the ship being put under quarantine.

§ 5. The master is bound peremptorily to follow the directions of the pilot, and thence to cast anchor in the roads wherever he may direct, if circumstances do not allow of the vessel being brought in. But in coming in, the direction of the vessel must be left entirely to the pilot, and the master must strictly follow his orders, on pain of being fined 2 dollars for every ten lasts. Should, however, the pilot commit faults in conducting the vessel, so as to endanger her, and refuse to take warning, then is the master at liberty, with the concurrence of the Council as prescribed in section 1, to take the command from the pilot; but such case must be immediately notified to the Pilot-Commodore, when an investigation, and the punishment of the master or pilot, shall immediately take place.

§ 6. So soon as the ship reaches the piers the sails must be taken in, under a penalty of 50 dollars, besides being responsible for the damage occasioned.

§ 7. The master is not allowed to have a pendant flying at the maintopmast head, nor to fire any great guns or small arms, except the customary signal and salute guns, without special permission from the Pilot-Commodore, who must previously obtain the consent of the Commandant of the fort.

§ 8. The anchor must be properly marked or provided with buoys, and every master neglecting this shall be subject to a fine of 10 dollars.

§ 9. The existing sea-marks shall not be moved or damaged, under a penalty of 200 dollars; and every accidental damage of these, also whatever may be observed in the roads or harbour injurious to the navigation, must be pointed out to the Pilot-Commodore, under a penalty of 50 dollars.

Police Regulations for the Master during his stay in the Harbour or Inner Navigation.

§ 10. The master, immediately on landing, shall deliver to the Pilot-Commodore the ship's articles, with the passports of the passengers, and shall present the latter, as well as the whole crew.

§ 11. The master is responsible during his stay in the harbour and inner navigation for his crew, and must answer for every offence committed by them against the police regulations. He is further bound when any one of his crew is discharged, or remains on shore, immediately to acquaint the police thereof, in order that the person so remaining behind may be struck out of the muster-roll or passport.

§ 12. The master must only moor his vessel at the place pointed out by the Pilot-Commodore, if in the harbour, and by the Harbour-Master or Stream-Inspector if in the inner navigation, with the knowledge and consent of the Board of Excise: he must strike the topgallant mast and yards, hawl in the jib-boom, spritsail-yard and spanker boom, top the yards, and stow the anchors on the forecastle.

§ 13. Ships laying at the quays, bulwarks, or piers, must have their sides provided with fenders of long round timber, or of strong twigs or cordage, and every direct collision of the vessel with these works must be prevented; the ropes must also not be made fast to the bulwarks, but to the proper posts.

§ 14. Every offence against these directions, and every want of obedience on that score by the master and crew to the orders of the Pilot-Commodore, if in the harbour, or of the Harbour-Master or Stream-Inspector, if in the inner navigation, or of the police-officers, if on shore, shall be punished by a correspondent fine of 3 to 15 dollars, and the master has besides to blame himself if his vessel

is immediately removed at his expense, and, in case of resistance, if his ropes are cut.

§ 15. No master is allowed, without special permission in writing from the Pilot-Commodore, to have fire on board his vessel for the purpose of cooking, under a penalty of 5 to 20 dollars, and on pain of a like fine must no fire be made for cooking or preparing combustible materials except in private houses, or in the cook-houses to be pointed out by the Pilot-Commodore or police-officers; nor shall any vessel be hove-down or repaired, except at such places, as the Pilot-Commodore or Harbour Master shall direct.

§ 16. The master must, immediately on his arrival, notify to the Custom-house officers what stock of gunpowder he has on board, under a penalty of 5 to 50 dollars, and the Custom-house officers must inform the Pilot-Commodore thereof, who has to decide with due regard to his duty, whether the same shall be left with the master, at his risk, or be deposited in a proper magazine. But if a ship be loaded with gunpowder, then is the master bound to keep the black flag hoisted at the mast-head, until the whole cargo is discharged.

§ 17. No person is allowed to smoke on deck, nor in the streets, nor to have a lighted candle except in a lantern, nor to shoot, under a penalty of 1 to 10 dollars. In case of actual damage by fire, through fault of the master or crew, the offenders shall be liable to criminal punishment according to law.

§ 18. The crew and others belonging to the ship must be on board at night, in summer by 11 o'clock, and in winter by 10 o'clock, at latest, on pain of being arrested, and punished by the police. But even till these hours at least half of the crew must be on board of every vessel, and very small vessels must have at least two men on board.

§ 19. Whoever wilfully, or through carelessness, does any damage to the public cook-houses or other buildings, shall, besides paying the expense of repair, be subject to imprisonment for three to fourteen days.

§ 20. All these and other offences against the general police-regulations, also abusive language and frays among the seamen, are to be taken cognizance of and punished by the Pilot-Commodore or Stream-Inspector, or by the police-officers, according as such may have taken place on board or ashore; but every person so accused is at liberty to desire a more minute investigation, and a decision through the Royal Presidency of Police, whose determination is immediately to be acted on.

General Instructions to the Master regarding his conduct towards the Custom-house Authorities.

§ 21. The master is bound, with reference to the Taxation Act, to deliver an exact statement of the contents of his cargo, as to kind and quantity; under the title of "General Declaration." How the same is to be made out, and what the master has further to observe, in regard to the public customs, is exhibited in the Regulations for the entry of goods exported and imported by the mouths of the Vistula, and by which he must be guided, so far as concerns him.

Directions to the Master on taking his Ship into the Inner Navigation and from thence back into the Harbour.

§ 22. Vessels above 10 lasts burden, going from Fairwater to Danzig or returning from thence, must receive on board the pilot appointed for them by the Pilot-Commodore in Fairwater, or by the Harbour-Master or Stream-Inspector in Danzig, whose orders must be followed as directed in § 5, with regard to the sea-pilots, under a penalty of 20 dollars.

§ 23. The permission to pass through the Sluice for Danzig must be applied for at the Custom-house in Fairwater, but vessels from town must stop at the Warning near the Great Ballast-Krug and application be made to the Inspector of the Sluice for permission to pass it.

Rules for the Master in discharging and taking in Ballast.

§ 24. Only as much ballast is allowed to be discharged in the Ballast-Roads as is necessary to bring the vessel into the harbour; but this must not in any case be done until permitted by the pilot, and only at the place he may point out, under a penalty of 100 dollars.

§ 25. In like manner is the discharging and loading ballast in the harbour, the Vistula, or Mottlau, only permitted at the place, and in the way, as, if in Fairwater, the Ballast-Inspector, but, if in Danzig the Harbour-master or Stream-Inspector, may direct; but on no consideration dare ballast be thrown into the water under the penalty fixed in the foregoing section. In discharging or taking in ballast, the master may, however, employ his own or hired men and materials, as he chooses.

§ 26. Every master bringing stone-ballast, not on order from an individual, and that can be used for the works of the harbour, shall be paid a premium for the same, which will be annually fixed and publicly announced.

Prescriptions regarding the Port Charges to be paid by the Master.

§ 27. Besides the port-charges payable to the broker on the ground of the tariff published of these, the master must not, under any pretext, give a present or remuneration, either to the Pilot-Commodore, the Harbour-master, the Stream-Inspector, or the Royal Custom-house Police or Ballast Officers; the master is even expressly forbidden to offer or to give any of these public officers the least present for the exercise of his duty, as any such offer shall be punished, according to the laws of the land; besides the present being confiscated for the Sea-Poor Cash.

§ 28. Should any of the abovementioned officers dare, under any pretext whatsoever, to accept a present or fee, the master is bound to inform against him to the President of Police, or to the Upper Inspector of the Customs in Danzig, that he may be punished.

§ 29. In particular cases, however, if the master be disposed to show his gratitude to the pilot for extra services done, he may, with the knowledge and consent of the Pilot Commodore, make him such present.

§ 30. The master must carry on board, and send on shore, the officers appointed to measure the ship when laying in the roads.

Prescriptions to the Master when going to leave the Harbour.

§ 31. When the master has his cargo on board, duly cleared, and is ready for sea, he must call at the Police Office in Danzig, in order that—

(1.) If he has engaged his crew on the spot a muster-roll may be drawn out, and sea-passports be got for the native and muster-attests for the foreign seamen;

(2.) But, if he carries back the same ship's company he brought, that a muster-attest be made out.

§ 32. With these papers, and the Custom-house and excise clearances, the master must apply to the Pilot Commodore in Fairwater, who again musters the crew, and on finding all in order will certify the correctness of the muster-roll or sea-passports.

§ 33. Every neglect of these prescriptions is punishable by a fine of 5 to 50 dollars.

§ 34. The master is liable to a fine of 10 to 100 dollars if he receives on board passengers not provided with proper passports, issued or countersigned by the Presidency of Police, and attested by the Pilot Commodore.

§ 35. The master must also take on board a pilot on going out of the harbour, under the penalty fixed in § 1.

How the Fines fixed in the Police Regulations are to be applied.

§ 36. The penalties before ordained that are fixed to any act or neglect militating against police prescriptions shall fall to the Sea-Poor Cash; and those fines having the preservation of the harbour and its works for object shall fall to the Harbour Cash.

Instruction for the Duty of the Harbour Police Officers.

§ 37. In pursuance to these police regulations are the sea-pilots and their commodores, also the harbour police officers, who have the inspection of the inner navigation from Fairwater upwards, to be provided with suitable instructions.

Participation of the Merchants of Danzig in the Harbour Police.

§ 38. The merchants of Danzig are authorised and bound to control the execution of these regulations for the good of the port, and all the establishments belonging to it, and for this end they are to give two members of their Committee the necessary charge.

We particularly commission our Minister of Trade with the execution of these police regulations, which also must be properly made known abroad, and we command our Ministerial and High Collegiate authorities, Judicial and Police Courts, and in general all shipmasters and seafaring persons, each as regards him, strictly to respect them.

Given at Berlin, on the 30th January, 1821.

(L.S.) FREDERICK WILLIAM.

(L.S.) Prince Hardenberg.
Count Buelow.

Warning.

As only the quay of the harbour, the strand, and those with trees encompassed alleys on the Westerplate are to walk on, every one who leaves these ways and is found in the plantations and fields, is liable to a penalty from 1 to 5 dollars, or a proportionable confinement. The same penalty has to expect who is found on the said places with a gun, whether charged or not charged.

Danzig, August 25, 1836.

His Royal Majesty's Country Counsellor and Director of Police,
(Signed) LESSE.

Advertisement.

The Royal Regency has, according to Order of the 21st September, 1832, declared the Section 18 of the Police Regulations for the port and inner navigation of Danzig, dated Berlin the 30th January, 1821, in that manner "that during nighttime, as well in the harbour as in the inner navigation, from the beginning of dark, always a watchman on board of every ship or craft shall keep the watch."

This Order is hereby renewed, and every neglect of the same to be laid on with 2 dollars penalty, because it has been observed, through the want of attention to the same, opportunity to thefts on board of vessels and craft has been given. Every shipmaster, therefore, has to advise his watchman to give immediate answer on calling to the police patrols to show that the watch is properly kept, otherwise it must be deemed that this is not the case, and the abovementioned penalty is forfeited.

Danzig, May 6, 1836.

His Royal Majesty's Country Counsellor and Director of Police,
(Signed) LESSE.

STETTIN.

1. No prohibition of the kind exists.

It may not be irrelevant to observe that British ships cannot obtain cargoes (except of grain) from this port to French ports, owing to the differential Customs duties levied in France on goods brought from Prussian ports in British vessels. The estimated value of timber exported from Stettin to France is about 65,000*l.* annually, but all this timber is shipped either in Prussian or in foreign vessels, British vessels being practically excluded from the trade, owing to the higher duties to which timber brought to a French port in a British vessel would be subjected.

2. The only differential shipping dues levied at this port are on French ships, which pay double the amount of Royal and local dues levied on Prussian ships. British ships are in every respect on the same footing as Prussian ships.

3. No such variations exist. British ships, whether arriving from or clearing out for the United Kingdom or its Colonies, or to or from foreign countries, are subject to the same dues as Prussian ships.

4. The only differential dues are, as stated in answer to Query 2, on French vessels, and I believe no repayments of any such differential dues have ever been made.

5. There are no such regulations.

6. The local regulations respecting Prussian seamen are in strict accordance with the provisions of the Prussian Civil Code ("Allgemeines Landrecht für die Preussischen Staaten"), ii, 8, §§ 1,504–1,619, inclusive.

Prussian seamen are engaged either for the voyage or monthly. The average rate of wages is, for able-bodied seamen, 13 dollars; for ordinary seamen, 9 dollars; boys, 5 dollars, Prussian currency, a-month.

(Signed) J. A. BLACKWELL, *Her Majesty's Consul.*

Stettin, September 17, 1860.

KÖNIGSBERG.

1. British ships are not prohibited in any way from taking cargo or passengers to any parts of the world.

2. Privileged ships, *i. e.*, ships on the same footing as Prussian ships, pay—

On arrival with cargo, 15 sgr. (1*s.* 6*d.*) per last.
On departure with cargo, 15 sgr. (1*s.* 6*d.*) per last.
On arrival in ballast, 7 sgr. 6 pf. (9*d.*) per last.
On departure in ballast, 7 sgr. 6 pf. (9*d.*) per last.

Besides which, on coming to Königsberg, in and out, one payment for River Pregel-mouth money—

With cargo, 5 sgr. 6 pf. ($6\frac{1}{2}d.$) per last.
With ballast, 2 sgr. 9 pf. ($3\frac{1}{4}d.$) per last.

And town dues or stream money for in and out—

For vessels of 25 lasts, 2 rixthalers (6*s.*) per last.

,,	50	,,	3	,,	(9*s.*)	,,
,,	75	,,	4	,,	(12*s.*)	,,
,,	100	,,	6	,,	(18*s.*)	,,
Upwards of	100	,,	8	,,	(24*s.*)	,,

Coasters between East and West Prussia, one-third of the above.

Not-privileged ships pay, in all cases, double, and besides which—

On arrival with cargo, 2 rixthalers (6*s.*) per last, flag money.
On departure with cargo, 1 rixthaler (3*s.*) per last, ditto.
On arrival in ballast, no charge for flag money.
On departure in ballast, ditto.

A list of privileged and not-privileged flags follows at foot.

3. No such variations exist.

4. No such drawbacks or repayments are made to any vessels, under any circumstances.

5. There are no such regulations. Private ship-agents at Pillau sometimes overcharge commissions on freight, but it is in connection with that money, &c., and the Prussian laws rectify such overcharges, if properly applied to.

6. There exist no particular laws or regulations for seamen, who are under the common law of the country.

Regarding the hiring of seamen, there is at each sea-port in Prussia a water bailiff ("Wasser-Diener") attached to each Commercial or Admiralty Court; this officer engages the men, and proceeds with them and the master to the Court, and a formal contract of service is entered into for each voyage.

The average rate of wages for an able seaman is 12 rixthalers (36*s.*) to 15 rixthalers (45*s.*) per month. During the late Russian war, wages were at 60*s.* and upwards per month, but this was an exceptional occurrence.

List of privileged ships (flags), *i. e.*, ships treated exactly as Prussian ships:—

1. British (except East India Company).
2. Brazilian.
3. Denmark.
4. Hanover.
5. States of the Church.

6. Zollverein.
7. Mexico.
8. Holland (except Colonies).
9. United States of America.
10. Austria.
11. Russia.
12. Norway and Sweden.
13. Hanse Towns.
14. Chile.
15. Spain.
16. Naples.
17. Ionian Islands.
18. Belgium.

The unprivileged ships (flags) at present are—

1. France.
2. Sardinia.
3. Some South American States.

The trade with France is almost entirely suppressed from this cause.

(Signed) W. J. HERTSLET.

Königsberg, September 17, 1860.

Roman States. (Civita Vecchia.)

1. In no case are British vessels prohibited from bringing or taking cargo or passengers at the port of Civita Vecchia, from or to any part of the world.

2. There are no differential shipping dues of any description, Imperial or local, levied on national, foreign, or British vessels, arriving or departing. Vessels belonging to nations having a Treaty of Reciprocity with the Papal Government are treated in every respect as national vessels; those of nations with whom there exists no reciprocal Treaty are subjected to a higher rate of tonnage dues, say 9 bajocchi or $4\frac{1}{2}d.$ per ton, over and above those of favoured nations. Great Britain has exchanged declarations having the force of a reciprocal Treaty with the Papal Government.

3. The port of clearance or destination does not in any way affect the rate of tonnage dues levied.

4. There being no difference in the rates levied, it follows that there can be no drawbacks or repayments (see above, answers to 1 and 2).

5. British vessels being treated as national vessels, there can exist no regulations specially affecting them, and entailing upon them extra charge or expense not equally borne by national or foreign vessels.

6. The laws and regulations of the port, as affecting seamen, are similar to those of most mercantile marine communities, from which they are mainly derived.

It is impracticable to state the average rate of seamen's wages, the seamen being employed almost exclusively in the coasting trade, in which it is customary for the amount of wages to be made dependent on the amount of freight earned, and this varies according to circumstances, viz., the rates of freight and the number of voyages.

Civita Vecchia, October 15, 1860.

Russia.

ST. PETERSBURGH.

1. British ships are permitted to bring or take cargo or passengers from or to any part of the world, excepting the Russian ports of the Baltic.
2. None.
3. Answered above.
4. See answer to Query No. 2.

5. None.

6. The authorities do not allow foreign seamen to reside on shore, except in case of sickness or wreck, nor do they allow them to be discharged from a ship unless they can find immediate employment in other vessels.

The average rate of wages for able seamen is 3*l.*, and for ordinary seamen 2*l.*, per month.

(Signed) WALTER MAYNARD,
Her Britannic Majesty's Vice-Consul.

Cronstadt, December $\frac{8}{20}$, 1860.

(Signed) C. EASTLAND DE MICHELE,
Her Britannic Majesty's Consul.

St. Petersburgh, January 21, 1861.

ARCHANGEL.

1. British ships are not prohibited from bringing or taking cargo or passengers at this port from or to any part of the world, except it be to or from Russian ports, the coasting trade being reserved for national ships.

2. There are no differential shipping dues of any description levied on national or British ships either arriving or departing, but there are such dues on ships belonging to countries with which Russia has no Treaty of Reciprocity (some of the South American Republics for instance). Such ships pay 2 roubles per last "lastage money," instead of 10 copecks per last (or about 3*s.* 3*d.* per ton instead of about 4*d.* per ton) levied from national and ships of other nations. There is no distinction made whether the ships be in ballast or with cargoes.

3. There are no variations in the shipping dues dependent on the ships arriving from or clearing out for the United Kingdom or its colonies, or to or from foreign countries or their colonies.

4. There are no drawbacks or repayments of dues.

5. There are no such regulations.

6. There are no local laws and regulations at this port affecting seamen. The average rate of wages of seamen is 3*l.* per month.

(Signed) CHARLES RENNY,
Archangel, October 29, 1860. *Her Britannic Majesty's Consul.*

RIGA.

1. Yes; they cannot carry from one Russian port to another unless it be cargo brought from a foreign country which may be so carried by the ship which brought it.

2. Imperial dues are the same for all nationalities.

British and Russian ships pay the same local dues or port charges, but other foreign vessels pay higher.

A ship, British or Russian, of 100 lasts or 200 tons pays:—1. Address money, 30 silver roubles; 2. Port-charges, 20 silver roubles, in all 50 roubles, or $\frac{1}{2}$ rouble per last of 2 tons measurement. Other nations pay the above, per last of $1\frac{1}{6}$ tons of cargo actually loaded at the rate of, 1st, 25 copecks; 2ndly, 20 copecks per last. A vessel of 100 lasts measurement loads probably 150 lasts, and would therefore pay address money 37 silver roubles 50 copecks; port-charges 30 silver roubles: in all 67 silver roubles 50 copecks, or $17\frac{1}{2}$ roubles more than a British or Russian ship; the British ship pays, however, 2 silver roubles 70 copecks church money, from which other vessels are exempted. These are mercantile charges.

3. No.

4. No.

5. None whatever.

6. The jurisdiction of the Consuls is fully admitted for the seamen of their respective nations; the police will apprehend deserters, imprison offenders, or otherwise punish them at the Consul's request.

For offences on shore, the seamen are liable to be tried by the tribunals of the place, which cannot, however pronounce a sentence except in the Consul's presence. Wages; British 3*l.* 10*s*; foreign 3*l.* per month for able seamen.

(Signed) ROBERT G. JOHNSON.

Riga, October 9, 1860.

WIBORG.

1. British vessels may bring and take passengers and cargo from and to any part of the world, but it is not permitted to employ other than Finnish or Russian vessels in the coasting trade of the Grand Duchy of Finland, and consequently, also, British ships are excluded from the coasting-trade. See, however, the Treaty between Great Britain and Russia, of January 12, 1859, Article VIII.

2. *Pilot Dues.*—Vessels belonging to States not privileged pay twice as much as national and privileged shlps. British ships and most others are privileged.

Town Dues.—Ships belonging to Wiborg pay 4 copecks the last; other Finnish and Russian ships, and ships belonging to States privileged, as for instance Great Britain, pay 8 copecks the last; ships not privileged pay 16 copecks the last.

Customs.—Merchandise arriving in or shipped on board ships belonging to States not privileged, pay 50 per cent. more duty than if imported or exported on board of vessels belonging to States privileged. Nearly all States, Great Britain also, are privileged. Finnish goods exported for the respective ship's use are subject to duty if the ship in question belongs to States which grant no reciprocity to Russia and Finland. Great Britain is considered to grant reciprocity.

Church Money, for the benefit of the German-Swedish Church at Wiborg, is paid by all ships resorting to Wiborg, British ones only excepted.

3. None.

4. A drawback of 15 per cent. is allowed on the duty on coffee imported direct from the Brazils in Finnish or Russian vessels.

5. None.

6. The Shipping Ordinance of the 28th May, 1839, for the Grand Duchy of Finland, § 61, enacts: "Any foreign master who, after having applied to the Local Board of Seamen, has engaged Finnish seamen, shall deposit for each such Finnish seaman 140 silver roubles (about 22*l.*) as a guarantee for the returning of the same."

This is an unsurmountable barrier to the engaging of Finnish seamen, in case British or foreign ships are short of hands.

The rate of wages is per month:—

Mate	25	silver roubles,	about	£3 15*s.*
Carpenter ..	15	„	„	2 5
Able seamen ..	14	„	„	2 2
Ordinary seamen	9	„	„	1 7
Apprentice ..	5	„	„	0 15

Wiborg, October 3, 1860.

ODESSA.

1. Coasting trade is alone prohibited for vessels under foreign flags.

2. There are no differential shipping dues of any description.

3. There are no variations.

4. None.

5. There are no regulations specially affecting British ships.

6. Section 21 of the Regulations of the Port states, "Loading and discharging vessels may be carried on only from sunrise to sunset; at all other times it is strictly forbidden."

§ 29. "To have a regular and uninterrupted watch kept on board day and night by the ship's crew."

§ 31. "In case of any disorder breaking out on board, or of sickness or death happening to any of the ship's people, information to be transmitted to the Quarantine authorities."

The average rate of wages is 3*l.* 10*s.* a month for able seamen, and 2*l.* 5*s.* for ordinary seamen.

Odessa, October 5, 1860.

BERDIANSK.

1. In no case.
2. There are no differential shipping-dues.
3. There are no variations.
4. There are no drawbacks or repayments ever made.
5. There are no regulations specially affecting British ships.
6. Seamen are expected to remain on board as much as possible, and are not allowed to leave the town without permission. They are seldom any British seamen seeking employment.

(Signed) ROBT. WM. CUMBERBATCH, *Consul.*

Berdiansk, October 4, 1860.

TAGANROG.

1. In no case are British ships prohibited to bring or take cargo or passengers at this port from or to any foreign port in the world; but they are not allowed to bring from or convey cargo to Russian ports, which would constitute the coasting-trade, not admissible by Treaty.

2. No differential shipping-dues, of any description, are levied on national, foreign, or British ships arriving at or departing from this port, with or without cargo, excepting that the steamers of the Russian Commercial Steam-boat Company pay tonnage-dues once every year only, whereas dues are levied on all other vessels every separate voyage.

3. No variations in the dues are made, whether ships arrive from their national ports, from ports of their colonies, or from ports of other foreign countries.

4. No drawbacks or repayment of any dues are made to national, British, or foreign vessels.

5. There are no regulations at this port affecting especially British ships, cargoes, crews, or passengers, or entailing thereon extra charges or expenses not equally borne by national or foreign vessels.

6. Seamen, whether Russian or foreign, may be engaged and discharged at this port without restraint, on giving notice at the Custom-house, and with the sanction of the national Consul (in the case of foreigners). But foreign seamen cannot become permanent residents here unless provided with regular passports. The masters of Russian ships must be Russian subjects; the crews may be foreigners: but on clearing out for a Russian port, should more than three-fourths of the number of the crew be foreigners, a tax of 15 silver roubles (46*s.*) per man is levied on every foreign seaman in excess of that proportion. Coasting vessels cannot employ foreign seamen. The average rate of wages is from 14 to 16 silver roubles, say 43*s.* to 49*s.* per man per month, whether on foreign-going ships, or on coasting-vessels.

Taganrog, October 13, 1860.

SOUKOUM-KALE.

1. In no case are British ships prohibited from bringing or taking cargo (not being contraband) or passengers at this port from or to any part of the world. This rule, of course, does not apply to the coasting-trade, which, by Treaty, is reserved exclusively to national vessels.

2. No differential shipping-dues of any description are levied on national, foreign, or British ships arriving or departing, except in the case of a national vessel arriving from another Russian port, when it is exempted from paying tonnage-dues. This due, which is otherwise levied indiscriminately on all ships, consist of $2\frac{1}{2}$ copecks (about 1*d.*) on every ton of cargo conveyed, and if the ship arrive in ballast, according to its registered number of tons. In the latter case, should the ship again proceed to sea in ballast, no further payment is claimed.

3. None, except the above.

4. No drawbacks or repayments of any such differential dues have hitherto been made to national, foreign, or British ships.

5. None.

6. There are no local laws and regulations of this port specially affecting seamen. These are placed under the immediate supervision of the police. I may also observe that, as a rule, no agreement or written contract of any kind is

entered into between masters and seamen of Russian ships frequenting this part of the Black Sea. It not unfrequently happens, therefore, that a seaman suddenly quits his ship, whether enticed by higher wages to serve on board another ship, or from other causes; and, on the other hand, masters have been known summarily to dismiss a portion of their crews on arriving at a port, often thus causing the latter great distress. No redress is given by the Central authorities, in either case, failing the production of a written contract.

The average rate of wages of an able-bodied seaman at Soukoum Kalé is 15 roubles (about 46*s.*) per month.

In conclusion, I may state that, with the exception of the tonnage-due, there are no light, pilot, or other dues levied in this port.

(Signed) C. H. DICKSON, *Her Majesty's Consul.*

Soukoum-Kalé, October 15, 1860.

Sandwich Islands. (Woahoo.)

1. Not prohibited in any case, except in the coasting trade of the Islands.
2. There are no differential dues whatever.
3. Answered by the reply to No. 2.
4. Answered by the reply to No. 2.
5. None.
6. The principal laws and regulations of these Islands affecting seamen are good, having the effect of allowing the authorities to control them, treating them as seamen and not citizens, even after being discharged; and they are not liable for any debts they may contract in the sixty days they are allowed on shore, so that they are less exposed to being plundered by "land sharks." The authorities lend effectual assistance in apprehending deserters, and, generally, the arrangements appear judicious and just both to masters and seamen.

Average rate of wages about 15 dollars (or 3*l.* sterling) per month.

(Signed) W. L. GREEN.

Her Britannic Majesty's Consulate-General,
Honolulu, Woahoo, December 24, 1860.

Sherbro River. (Sierra Leone.)

1. In no case are British ships prohibited from bringing or taking cargo or passengers to or from this port (Freetown) to any part of the world.
2. There are no differential dues, either Imperial or local, levied on British or foreign ships arriving at or departing from this port. The dues levied on British or foreign vessels for tonnage, lighthouse, and harbour dues are all the same.
3. There are no variations in this case.
4. None whatever.
5. There are no regulations affecting British ships, cargoes, crews, or passengers, except in cases which may fall within the operations of the Quarantine Ordinance, dated 12th July, 1853, section 5. The fees entailed in such case are borne by British as well as foreign ships.
6. There are no local laws which affect seamen; the average rate of wages of seamen in this colony is 50*s.* per month. The Imperial Merchant Shipping Act of 1854 contains the only regulations respecting seamen that are in force in this colony.

Sierra Leone, December 24, 1860.

Spain.

BILBAO.

1. British ships are not in any case prohibited, at the port of Bilbao, from bringing or taking cargoes of legal merchandize or passengers from or to any part of the world.

2. There are not any differential shipping dues levied on national, foreign, or British ships at this port.

3. There are no variations in dues on ships, no matter where they arrive from or proceed to, except in the case of ships clearing out in ballast, when (if they are proceeding to a Spanish port) the anchorage due, 1 real per registered ton, is only exacted once.

4. No drawback or repayment is made of ships' dues, which, as already stated, are the same on national as on British and foreign shipping.

5. There are no regulations specially affecting British ships, crews, or passengers, which would entail extra charge or expense, not equally borne by national or foreign vessels.

6. There are no local laws at this port affecting seamen. All Spanish sailors are under the jurisdiction of the Commandants of Marine at the respective ports. Wages of seamen appear to vary considerably; at present, and for some time past, they have been high at this port—say from 14 to 18 dollars per month.

(Signed) HORACE YOUNG, *Consul.*

Consulate of Bilbao, October 12, 1860.

VIGO.

1. British ships, as well as all foreign vessels, are not allowed to be employed in the coasting trade of Spain, unless conveying Asturian coals; they are also prohibited from taking Spanish produce to the Spanish Antilles. They are allowed to bring goods from any part of the world to Spain. They are allowed to convey passengers to or from any part of the world, and also from any one part of Spain to any other.

2. Vessels belonging to Belgium, Brazil, Chile, Denmark, France, Great Britain, Greece, Holland, Hanover, Hanse Towns, Mexico, Mecklenburg-Schwerin, Norway, Grand Duchy of Oldenburg, Portugal, Prussia, Russia, Roman States, Republics of the Equator and Uruguay, Sardinia, Sweden, Tuscany, Two Sicilies, and United States of America, are at the present time placed on the same footing in Spain as Spanish ships as regards port and navigation dues. Such countries as have not entered into a reciprocal Convention with Spain pay double the amount of port and navigation dues to that paid by Spanish vessels. Merchandize brought to Spanish ports in foreign vessels pays the differential flag duty, which on a general average may be calculated at about 15 per cent. higher than if conveyed under Spanish flag.

3. A foreign or a Spanish vessel with cargo bound from one foreign port to another foreign port, and putting into a Spanish port by any fortuitous circumstances, is considered as if in ballast, and only pays anchorage dues of 1 real, or $2\frac{1}{2}d.$, per ton, and may put into any other port or ports in Spain during the same voyage without paying any further dues. In cases in which such vessels should have on board cargoes destined to a Spanish port, then an additional real is paid per ton as light-dues, and $\frac{1}{8}$th of a real per quintal (about 101 lbs. avoirdupois) of cargo discharged; and further, 50 cents, or $1s.\ 0\frac{1}{4}d.$ per kiloliter (about one ton) as health charges.

4. In Spain no repayment of dues is made, unless such dues should have been improperly exacted. There are qualified ports in which merchandize may be deposited either for re-exportation or for importation, on payment of Customs dues. There are no drawback duties in Spain.

5. I am not aware that there are any regulations specially affecting British ships, cargoes, crews, or passengers, which are not equally borne by national or foreign vessels, excepting the differential flag duty on cargo or goods alluded to in Answer 2, which is borne by all foreign vessels, and which is specified in the Spanish Tariff.

6. Spanish seamen, according to the Spanish Maritime Regulation, are not

allowed to be shipped on board foreign vessels without the previous sanction of the Captain-General of the Naval Department. The average rate of wages for seamen shipping at this port varies from 13 to 15 dollars per month, or from 2*l.* 12*s.* to 3*l.*, calculated at par of exchange, or 100 reals equal to 1*l.* sterling.

(Signed) W. CONGREVE C. BRACKENBURY, *Consul.*

British Consulate, Vigo, September 26, 1860.

CADIZ.

1. There is no prohibition respecting passengers; but cargoes by British ships are subject to such heavy differential duties of importation in Spain and her colonies, as amount to a prohibition.

2. British and all foreign vessels belonging to countries reciprocating, are placed exactly on the same footing as Spanish ships in the Peninsula as regards dues of pilotage, lights, or other port charges. Ships arriving and re-sailing in ballast, or with cargoes of salt only, are free of light, anchorage, and all port charges except pilotage.

3. None.

4. None.

5. None with respect to crews or passengers; but goods pay differential dues when imported by British or any foreign vessel, averaging from 20 to 33 per cent. higher than the same goods imported by Spanish ships.

6. Mates, 6*l.*; A. B., 3*l.* 8*s.*; Ordinary, 3*l.*, per month.

Cadiz, December 3, 1860.

SEVILLE.

1. British ships are in no case prohibited from bringing or taking cargo or passengers at this port from or to any part of the world, except it be coastways, in which trade they are only allowed to take coals.

2. There are no differential shipping-dues of any description levied at this port.

3. There are no variations in such dues.

4. Drawbacks are not in practice in Spain.

5. There are no regulations specially affecting British ships, cargoes, crews, or passengers.

6. All men employed on board of any vessel, either as seamen or in any other capacity, have to be be duly registered for the sea service. The average rate of wages is about 3*s.* 4*d.* per diem. Men thus registered have the privilege of not being drawn for the military service, but they are subject to be drafted for the navy, which ensures to the Government a vast number for the naval service.

(Signed) JULIAN B. WILLIAMS,

Seville, October 1, 1860. *Her Britannic Majesty's Consul.*

MALAGA.

1. The only specific prohibition on the carrying trade as between Spain and other places is, that the home coasting trade is exclusively reserved for the Spanish flag, with two exceptions:—Coals, the produce of Spanish mines, may be carried coastwise, free of duty, in foreign bottoms; and the coasting passenger trade is open to foreign steamers upon the same terms as under the Spanish flag. The carrying trade between Spain and her Colonies, although not expressly prohibited to foreign shipping, is virtually restricted to the Spanish flag by means of enormous differential duties, ranging from 20 to 1,238 per cent.* extra imposed on all goods imported from said Colonies in foreign bottoms. Such foreign merchandize as is prohibited to be imported into Spain cannot be carried in transit to a Spanish port in vessels which measure less than 200 Spanish tons burden.

2 and 3. As a measure of reciprocity, by Royal Order of the 7th September, 1852, all differential shipping dues and port charges on British vessels in Spain were declared to be thenceforth abolished. Our ships now pay at Malaga the

* See Article 387 of Spanish Tariff. Green salted hides from Manilla.

same navigation and port duties, and are subject to the same port regulations, as Spanish vessels, with one exception :—Spanish shipmasters are allowed to ballast and unballast their own vessels at this port, while British and foreign shipmasters are arbitrarily compelled to avail themselves of the services of a contractor, who pays a high annual rent for the monopoly, charges an exorbitant rate for the supply or removal of the ballast, and performs the service in a most unsatisfactory manner.

4. None.

5. None; with the exception of the ballast monopoly already mentioned, and by which all foreign vessels are equally prejudiced.

6. The laws of Spain prohibit Spanish seamen from navigating in foreign vessels, unless when provided with a special license from the Marine authority, which permission is rarely or never granted. British vessels, when short of hands at Malaga, are obliged to seek for foreign seamen, not Spaniards. In the Spanish coasting trade ships are usually sailed by shares. The rates of wages for long-sea voyages are—for able seamen, 16 to 18 dollars, or 68*s.* to 76*s.* 6*d.* per month; and for ordinary seamen, 12 to 14 dollars, or 51*s.* to 59*s.* 6*d.* per month; and two months' advance are generally given at the time of shipment.

(Signed) WM. PENROSE MARK, *Consul.*

British Consulate, Malaga, October 11, 1860.

CARTHAGENA.

1. British ships are prohibited taking cargoes at this port for any part of the Spanish dominions; but passengers are permitted from one Spanish port to another in British vessels.

2. No differential shipping dues are levied upon British or foreign vessels.

3. No variation in the shipping dues in any way whatsoever.

4. No drawbacks or prepayments at all allowed.

5. British and foreign ships are precisely on the same footing as the Spanish, so they are not entailed with any extra charge or expense.

6. No particular regulations in this port affecting seamen. The rate of wages varies according to the voyage intended, but generally, for the coasting trade, the master and crew are freight sharers, and no wages.

(Signed) EDMUND J. TURNER, *Consul.*

Carthagena, September 17, 1860.

ALICANTE.

1. In no case are British ships prohibited from bringing or taking cargo or passengers at this port from or to any part of the world.

2. Since the Law of Reciprocity of January 3, 1852, was accepted by the British Government, no differential shipping dues are levied on British ships arriving or departing.

3. No such variations exist.

4. No drawbacks or repayments of differential dues are made to national, foreign, or British vessels.

5. No regulations exist entailing upon British ships when in port extra charge or expense not equally borne by national or foreign vessels.

6. All persons dedicating themselves to a seafaring life are enrolled, and enjoy certain privileges, such as fishery, loading and discharging vessels in port, exemption from the conscription for the army, &c.; and they are bound when called on to serve four years in the vessels of war, which is called the first campaign, being liable to be called on for a second campaign, if required, which is seldom the case. In order to serve on board Spanish vessels, they must have permission from the Commandant of Marine of the Province; but to serve in a foreign vessel permission must be obtained from the Captain-General of Marine of the Department, which renders it next to impossible to obtain Spanish seamen when required in foreign vessels.

In the coasting trade the crews generally have a share in the profits of voyages; and in sea-going ships the average rate of wages may be taken at 14 dollars per month.

National and foreign vessels pay for—

Anchorage dues, per ton (Spanish)	..	..	1 real
Light dues „ „	..	..	1 „
Health dues „ „	..	..	½ „

and besides, for every quintal of cargo discharged or loaded, ⅛th of a real, or 2½ reals per ton.

But in order to defray the expenses of enlarging and deepening this port, which were contracted for publicly on the 7th instant for 11,699,892 reals (116,999*l.*), to be finished in five years, it was ordered on the 25th June last that all these shipping dues shall be doubled from January 1, 1861.

In Valencia the same dues are exacted on shipping, but a local rate of 10 reals per ton is imposed on all cargoes, and paid by the owners of the goods to defray the charges of the new mole.

Pilotage in Alicante—

Vessels up to 300 tons, in and out	..	..	3 dollars
Ditto over 300 tons, „ ..	..	..	4½ „
Each movement in port of departure, up to 300 tons			1 „
Ditto ditto ditto, beyond 300 tons			1½ „

(Signed) BENJN. BARRIE, *Consul.*

Alicante, September 18, 1860.

BARCELONA.

1. All foreign vessels are restricted from the coasting trade, but the foreign and colonial trade are equally open to those that are assimilated to Spanish vessels, the British flag being one. The cargo carried by a non-Spanish vessel to a colonial port of Spain may possibly be subjected to a higher duty at the port of delivery. On taking it in here no difference is made between a Spanish and a foreign assimilated one.

2. No differential shipping-dues are levied at this port on British vessels, nor on other foreign vessels equally assimilated to Spanish. The few that are not entitled to this reciprocity pay double port and local dues. Certain Imperial and local dues being charged upon cargo, a vessel arriving in ballast is not liable to them.

3. The circumstance of a vessel arriving from or clearing out for the United Kingdom or its Colonies causes no variation in the matter.

4. No drawbacks or repayments are made at this port.

5. British ships and their crews are entitled to the same treatment as Spanish vessels and crews; consequently no extra port charge or expense is borne by them.

6. There exists no Local Law or Regulation in this port specially affecting seamen. The average rate of wages for seamen here varies according to demand from 12 to 16 dollars per month. Spanish seamen are strictly prohibited from engaging in foreign merchant-vessels, although the prohibition is in many instances evaded by false names and birth-places.

(Signed) JAMES BAKER, *Consul.*

October 9, 1860.

MAHON.

1. The coasting trade is only allowed under the Spanish flag, and prohibited to foreign vessels.

2. The shipping-dues levied on foreign ships arriving or departing, whether in ballast or with cargo, are the same that are levied on Spanish vessels.

3. No variation of dues whatever.

4. None.

5. None.

6. There are no Local Laws or Regulations affecting seamen. The authorities are guided by the "Ordenanzas de Matriculas." The wages of seamen are 10 dollars per month on board steamers, and from 14 dollars to 16 dollars per month on board vessels bound to America or any other distant ports. Sailors navigating in the Mediterranean sometimes get their share of the profit of the voyage in lieu of wages.

Mahon, October 8, 1860.

TENERIFFE.

Acting Consul Parkinson to Lord J. Russell.—(*Received December* 12.)

My Lord, *Canary Islands, Teneriffe, November* 6, 1860.

I HAVE the honour to acknowledge the receipt of the Foreign Office Circular despatch of the 27th of August last, transmitting three copies of a paper containing queries on points connected with shipping.

As a modification of the system of free ports existing in these islands is on the point of being introduced, with a guarantee for the continuance of the system for ten years, I defer sending the answers to these queries until the next mail, when I shall be enabled to answer them in accordance with the new Regulations.

I have, &c.
(Signed) JOHN PARKINSON.

Acting Consul Parkinson to Lord J. Russell.—(*Received January* 14, 1861.)

My Lord, *Canary Islands, Teneriffe, December* 29, 1860.

WITH reference to my despatch of the 6th ultimo, acknowledging the receipt of the Foreign Office Circular despatch of 27th August last, transmitting three copies of a paper containing queries on points connected with shipping, as I find that the modification I referred to as being on the point of being introduced is still pending, I have the honour to return herewith to your Lordship two copies of that paper, with my answers written opposite to the queries, as directed ; and I shall not fail to report hereafter such alterations in the existing free-port system as may be eventually carried into effect.

I have, &c.
(Signed) JOHN PARKINSON.

Inclosure.

Answers to Queries.

1. The only case in which British and foreign ships are prohibited from bringing or taking cargo at the ports of this Consulate, is from or to Spanish ports, this being considered a coasting trade, and reserved to national vessels ; but British and foreign ships are allowed to carry passengers between the national ports.

2. Under the established free-port system a tonnage-duty of about 4*d.* per ton is levied equally upon all national, foreign, or British ships which remain twenty-four hours in port, without any distinction between those in ballast from those conveying cargo or passengers. A sliding scale of duty levied upon cereals only is differential between national and British or foreign vessels.

3. None.

4. None.

5. None.

6. There is a vigorous system of maritime inscription, and all Spanish seamen are liable to serve in the Royal Armada. The average rate of wages is from 16 to 18 dollars per month.

(Signed) JOHN PARKINSON, *Acting Consul.*

British Consulate for the Canary Islands,
Teneriffe, December 29, 1860.

HAVANA.

1. There is no prohibition whatever.
2. All vessels not Spanish are on the same footing.

Differential dues:—

	Spanish.		British.	
	$	c.	$	c.
Tonnage dues, per ton	0	62½	1	50
Light dues, per ton	0	3⅛	0	6¼
Health dues, per ton	0	1½	0	3
Wharfage, per 100 tons per diem . ..	0	75	1	25
Pilotage	7	0	10	0

3. There is no variation whatever.

4. Vessels bringing a full cargo of coals pay only 50 cents per ton tonnage dues, and are exempted from the payment of health dues.

Mud-machine dues, 1¾ reals (21⅞ cents) per ton; and register dues, 17 dollars.

Mail-steamers pay tonnage dues only upon what cargo they carry away, and are permitted to enter and to load cargo to the extent of six tons free of charge.

5. None whatever.

6. Average rate of wages: master, 60 dollars; mate, 40 dollars; A.B., 20 dollars; O.S., 18 dollars.

Shipping master's fees, 2¼ dollars for each seaman shipped.

Penalty for not employing the shipping master 50 dollars, and for every seaman found improperly shipped on board a vessel after clearance, 100 dollars.

Penalty for harbouring deserters, 100 dollars.

Crimps and lodging-house keepers enticing away seamen, or harbouring them on shore without legal discharge from their vessels, are punished by imprisonment and the loss of any debt incurred by the seamen.

Sailors carrying arms or knives on shore are liable to six years' hard labour in the chain-gang.

The great protection in favour of the Spanish flag, to the entire exclusion of British vessels in the carrying trade from Great Britain to Cuba, consists in the differential duties levied upon British manufactured goods, viz.:—

On goods imported in British vessels on a fixed valuation ..	29½ and 35½ per cent.
On goods imported in Spanish ships	21½ and 25½ „
Difference	8 and 10 „

Or 37·21 and 39·21 per cent. increase of duty.

(Signed) JOHN V. CRAWFORD,
Acting Consul-General in Cuba.

Havana, October 30, 1860.

ST. JAGO DE CUBA.

1. British vessels may bring or take cargo or passengers at the port of St. Jago de Cuba from or to any part of the world (out of this island), but the differential duties on cargo in certain countries acts as a prohibition.

2. British and other foreign vessels arriving or departing loaded pay 1½ dollars tonnage dues per Spanish ton of measurement, whilst Spanish vessels only pay ⅝ of a dollar per ton. The other port charges are the same under all flags.

Vessels entering in ballast, or carrying passengers only, do not pay tonnage dues unless they load cargoes.

3. British and other foreign vessels, from whatever country proceeding, all pay the same tonnage dues and port charges.

4. Vessels arriving in ballast and loading molasses save their tonnage dues.

British or foreign vessels arriving with a full cargo of coal pay ½ dollar per

ton, Spanish measurement, if they carry over that number of tons; if only partially loaded with coal, they pay the ½ dollar of tonnage dues on the quantity discharged, and the full rate of 1½ dollars on balance of measurement. They are also exempted from the greater part of the port charges.

Spanish vessels coal-laden pay no tonnage dues.

5. In regard to cargo, a British or foreign vessel proceeding from Spain pays from 16½ to 19½ per cent.; whilst the same goods imported by Spanish flag are charged only 9 per cent. on the Custom-house valuation.

Foreign cargoes in Spanish bottoms pay from 21½ to 25½ per cent.

Foreign cargoes in foreign bottoms pay from 29½ to 35½ per cent.

6. The discipline of foreign crews is almost entirely left to the Consular officers by the local authorities, except in cases of gross misconduct on shore which require immediate punishment.

Seamen are rarely discharged at this port, and no quotation of wages can be given.

Note.—Although British and foreign vessels are prohibited from engaging in the coasting trade in Cuba, vessels arriving from other countries may land cargoes at more than one port by entering "in transit," on arrival at first port, such part of the cargo as is destined for other ports.

Vessels loading outward cargo may proceed to one or more ports to fill up.

Tonnage dues, in both cases, are only payable in the first port.

(Signed) JAMES FORBES, *Consul.*

St. Jago de Cuba, November 10, 1860.

PUERTO RICO.

1. In no case are British ships prohibited from bringing or taking cargo or passengers at the ports of Puerto Rico from or to any part of the world.

2. National, British, or foreign ships pay the same shipping dues, except the tonnage duty, which is levied on all foreign ships at 1 dollar per ton as per measurement, and on national vessels at 37½ cents per ton.

All vessels arriving in ballast, or carrying passengers only, are exempted from the tonnage dues.

Mail-steamers, recognized as such, are permitted to bring and carry passengers without paying tonnage dues. They are also exempted from all other local charges, excepting pilotage.

3. None.

4. National or foreign ships that take away full cargoes of molasses, their tonnage dues paid are returned; and vessels entering with full cargoes of coal pay only 50 cents per ton tonnage duty. I know of no other drawbacks or repayments of shipping dues.

5. None.

6. Coloured men belonging to the crew of any foreign vessel are not allowed on shore on liberty, nor are masters of foreign vessels permitted to discharge seamen, unless they are provided for by the Consul of the nation to which the vessel belongs; and it is prohibited by the Regulations of the Port that any native shall be taken away by ships, either native or foreign, unless under a bond given by the master of the vessel to return such native to Puerto Rico.

The average rate of wages is about 3*l.* sterling per month.

Puerto Rico, October 26, 1860.

MANILLA.

1. No vessel, national or foreign, can load leaf tobacco (sold only by Government for exportation) for any port east of the Cape of Good Hope.

For tobacco cargoes to Spain, Spanish vessels have the preference over all foreign vessels, and of late years all the surplus tobacco (after supplying the cigar manufactories here) has been sent to Spain. No British or other foreign vessel may engage in the local coasting trade betwixt Philippine ports.

2. Shipping-dues, comprising port, light, and cleansing charges:—

	If Vessel arrives and leaves in Ballast.	If Vessel loads or discharges any Cargo.	If Vessel discharges and loads any Cargo.
	Cents of a dollar.	Cents of a dollar.	Cents of a dollar.
Spanish vessel pays, per Spanish ton . ..	$6\frac{1}{4}$	$6\frac{1}{4}$	$6\frac{1}{4}$
British or other foreign vessel pays, per Spanish ton	$18\frac{3}{4}$	$34\frac{3}{8}$	$37\frac{1}{2}$

The Spanish ton is about 12 per cent. less than the English.

3. No.

4. No.

5. None but those described in answer to No. 2.

6. No seaman can be discharged from any British or foreign vessel unless unlimited security be given for him. No British subject or foreigner is allowed to serve on board a Spanish vessel, neither is a Spanish subject allowed to serve on board a British or foreign vessel without special permission from the Marine Court. A Spanish subject arriving in a British or foreign vessel, unless he can produce a special licence or permission from the port of his matriculation to enter on board foreign vessels, is liable to be taken from the vessel and criminally prosecuted by the Marine Court.

Average rate of seamen's wages in Spanish vessels:—

Europeans	2*l.* 0*s.* per month.
Natives of the Philippines	1*l.* 15*s.* „
In British vessels:—	
Europeans	3*l.* 0*s.* „
Natives of the Philippines	2*l.* 10*s.* „

(Signed) J. W. FARREN, *Consul.*

Manilla, December 31, 1860.

Sweden and Norway.

STOCKHOLM.

1. No.
2. No.
3. No.
4. No.
5. No.

6. The average rate of wages paid on board British ships is 3*l.* 10*s.*, and 25 Swedish rix-dollars (1*l.* 7*s.* 10*d.*) a month for able seamen.

All Swedish seamen are registered and licensed at the Seamen's Office (Sjömäns-hus). Foreign shipmasters cannot engage them without the consent of that office, and a deposit as security for their due return. Seamen subject to naval duty may be given leave to engage on board merchant-ships for a year.

Foreign seamen brought into the country by Swedish vessels must be sent back at the expense of the owners. Belgian, French, Greek, Netherland, Sicilian, and United States' seamen, deserting from their ships, are to be arrested and given up to their Consuls.

All seamen charged with minor offences are exempt from arrest on the surety of their masters.

Stockholm, September 25, 1860.

GOTTENBURGH.

1. In no case are British ships so prohibited.

2. With exception of French ships, which pay certain extra town dues, no differential shipping-dues of any description, Imperial or Local, are levied at this port on national, foreign, or British ships arriving or departing.

3. No such variations exist.

4. No.

5. The only charges at this port not equally borne by national or foreign ships are as follows:—Stamp duty on Custom-house clearance, ditto on certificate of measurement.

In each case, for a British or foreign ship, 1 rix-dollar (about 1*s.* 2*d.* sterling); for a national ship, 50 öre (about 7*d.*)

Harbourmaster's dues:—

For a British or foreign ship 3 öre per last (of 2 tons), equal to 1*d.* for every 5 tons; for a national ship 1½ öre per last (of 2 tons), equal to ½*d.* for every 5 tons.

6. There are no local laws or regulations at this port affecting seamen.

The average rates of wages for Swedish seamen, are:—

For a master (exclusive of perquisites)
50 rix-dollars per month .. (about 2*l.* 15*s.* 7*d.*)
„ mate .. .. .. (ditto)
„ seaman, 30 rix-dollars .. (about 1*l.* 13*s.* 4*d.*)

(Signed) C. F. ENGSTROM,
Gottenburgh, October 3, 1860. *Her Britannic Majesty's Consul.*

CHRISTIANIA.

Consul-General Crowe to Lord J. Russell.—(Received November 1.)

My Lord, *Christiania, October* 22, 1860.

I HAVE the honour to return herewith, in accordance with your Lordship's circular of the 27th August last, two copies of the paper containing queries on points connected with shipping.

As the new Commercial Marine Laws which come into operation on the 1st January next, ameliorate considerably the relations of the seaman to his owners and commander, and as all Norwegian seamen are liable to be drafted when needed into the service of the State, I have appended special abstracts of those laws as far as they affect seamen.

I have, &c.
(Signed) J. R. CROWE.

Inclosure 1.

Answers to Queries.

1. Not any.
2. Not any.
3. Not any.
4. Not any.
5. Not any.
6. There are no local laws or regulations affecting seamen. The only laws which exist are those regulating the drafting of seamen into the service of the State, and the new Commercial Marine Code, which first comes into operation on the 1st January next. Both these are general to the whole country. As they affect the status and relations of seamen, I annex special abstracts.

The average rate of wages may be taken as follows—

The master of a Norwegian vessel receives about 5*l.* per month fixed wages; 5 per cent. upon all freights, which may be estimated at a similar amount, besides the cabin freight.

A mate receives from 3*l.* to 4*l.* per month.

The wages of an A.B. seaman averages about 2*l.* per month.
„ Ordinary seamen „ 1*l.* 10*s.* „
„ Boy „ 1*l.* 0*s.* „

In large ships they will average three men to the 100 tons. Smaller ships five to the 100 tons.

A vessel with 12 men will generally be manned as follows:—

A.B. Seamen	6
Ordinary Seamen	4
Boys	2

The regulated scale for victualling is as follows:—

3 days in the week, peas with meat (beef).
2 „ „ porridge, or soup with pork.
2 „ „ „ with fish.

Of salt beef 3 days, 1¼ lb. per man daily (1lb. = 18 oz.)
Pork 2 days, 1½ lb. „ „
Dried fish 2 days, ¾ lb. „ „
Peas 3 days, ⅜ quart „ „
Grits for porridge 2 days, ¼ quart per man daily.
„ for soup 2 days, ⅛ quart „ „

And weekly per man—Bread 7lb., butter 1lb., coffee ½ lb., tea 1 ounce, molasses 1 lb., vinegar ⅜ quart; any deficiency in these or the above allowances must be made good to the men in money.

(Signed) J. R. CROWE, *Consul-General*

Inclosure 2.

Abstract of the Norwegian Commercial Marine Code, affecting Seamen, which comes into Operation on the 1st of January, 1861.

Engagement of Seamen, and their Duties.

§ 28. IN hiring crews for foreign trade, an agreement shall be drawn up and signed by both parties, which agreement shall specify the capacity in which the hired party is to serve, the voyage for which he is hired, the amount of wages given, as well as all other provisions agreed to.

A copy of each man's agreement shall first be entered in a tally-book (account-book), which shall then be given to him, and in which is to be entered the amounts paid him from time to time, on account of wages. Should it be discovered that he has hired himself to several, he shall be bound to serve that master to whom he has delivered his register ticket, provided the master was not aware of the existence of any previous engagement on the part of the man when he hired him.

If the register-ticket had not been delivered up at the time when entering into these engagements, the one first entered into shall be considered valid.

On the other hand, he who hires himself to several, shall be liable to punishment in accordance with § 3.

§ 29. Every one who has hired himself shall be bound to follow the ship conformably to the terms of his agreement.

Further, if during the voyage it should be determined that the ship shall proceed to other places, or on other voyages, than stated in the articles, he shall not refuse to continue with the ship, and he must, in the absence of other agreement, not leave the vessel until she returns to a Norwegian port, from whence a new voyage commences. However, neither such a change of destination, or agreement at first for an indefinite period or uncertain voyage, shall be binding on the party for a longer term than two years from the signing of the articles.

With these rules the crew should be duly apprized, and mention made in the agreement that the fact had been made known to them.

Should the term of engagement expire while the ship is at sea, the crew must not quit their service until the ship has reached her destination.

The appointment of a new master during the voyage does not entitle the crew to leave her. On the other hand, the crew are not bound to follow a master in any other ship.

§ 30. Where the hire is fixed by the month, in the event of any man being compelled to follow the ship further than was contemplated originally in his articles, his wages shall still continue to be computed by the same rule.

On the other hand, if engaged for the voyage, he shall be allowed for the lengthened or new voyage an increase, estimated according to the rate of the current monthly wages at the place he belongs to, but in no case less than the current rate at the time of starting.

Should the contracting parties not agree, this increase shall be determined by the Courts, or in foreign countries by the Consul.

Should the ship continue so long out that one engaged in a lower capacity than sailor acquires the ability and skill to be able to perform the more arduous and difficult ship's duties, his condition must be so far improved that his wages are raised to an equality with those with whom he does equal work.

If the ship, in consequence of damage sustained, is compelled to unload in a harbour of refuge, keel-hauled, or have to undergo any other important repairs, the crew shall all the same, even in cases when hired for the voyage, be entitled to the usual monthly wages, from the time when the unloading or repairs commence, until she is clear for sea.

In the same manner when the voyage is impeded by blockade or embargo, the crew are entitled to their usual monthly wages during the time the ship is thus detained. The master, however, has the right to send the men home, in which case their wages run on until they arrive home.

The monthly wages are in all cases calculated according to the articles, as determined above.

§ 31. In cases where, from altered circumstances, the voyage is given up, and the crew in consequence discharged before the ship leaves the port whence she should have started, they shall, if engaged for the voyage, be entitled to a third part of their wages.

If the ship has sailed but returns, and the voyage is not continued, the crew can claim the half of the wages for the voyage.

If they are engaged by the month, they are entitled, in both these cases, to half a month's wages beyond the time they have served.

If the voyage must be relinquished after the articles have been signed, because—

(*a.*) The ship either is laid under embargo, or on account of war, blockade, or like causes, cannot with safety proceed on her voyage; or,

(*b.*) An accident happens, either from storm, fire, or the like, which renders her unfit for sea;—the crew's wages shall be reckoned according to the time they have actually served; if engaged for the voyage, according to fair adjustment.

If the voyage agreed upon is not given up, but either shortened by change of destination, or otherwise lessened, the wages agreed for the voyage shall be paid without deduction.

§ 32. Men receiving injuries while in the service of the ship, which disable them from proceeding on the voyage, shall be attended to at the expense of the owners, but not longer, however, than four weeks.

Men falling sick or meeting with accidents on the voyage shall be attended to on board; or if there is an opportunity, and the illness is of such a nature as to require it, shall be brought on shore, and there be provided by the captain with medical advice and attendance.

If at the time of sailing the sick person is not sufficiently recovered to be put on board, the master shall recommend him to the Consul, and in cases where there is no Consul, place him where he will be properly attended to, and afterwards sent home.

Excepting in the average cases referred to in § 69, No. 12, the expenses of attendance, &c., on the sick seamen shall be defrayed by the ship.

Should any person be sick on board on the return of the ship, he is likewise entitled to attendance for a period of four weeks after arrival.

As long as the sick person accompanies the ship, he is entitled to his full wages.

If he is left behind at a foreign port, he shall receive wages up to the day the ship sails, where, as in cases where the agreement is for the run, he is entitled to full wages, otherwise only the half.

The heirs of any seaman dying at sea can claim his wages according to the above rules, after deducting his funeral expenses.

The fact of the seaman having brought on an illness through his own indiscretion does not exonerate the master from the responsibility of providing for his medical attendance and care, neither from making the necessary advance on the ship's account; but this outlay, as well as the expense of hiring another to do his duties, may be recovered by deducting the amount from his wages.

§ 33. In case of wreck of ship and cargo, the crew are entitled to what wages may be due to them; when hired by the month, up to the day of the wreck; but if for the run, they are entitled to the one-half of the amount if the

ship is on the outward voyage or arrived at her place of destination, but to two-thirds if on her homeward voyage.

Besides their wages, the crew are entitled to salvage when employed on the wreck; the amount, in case of disagreement, to be fixed by the Court and defrayed out of the proceeds saved. Those guilty of neglect when employed on the wreck lose not only their share of the salvage, but also a portion, or the whole, of the wages that may be due to them.

If the ship and cargo are brought up and condemned as a prize, the preceding rules hold good, in such wise that the monthly wages are computed to the period that it is settled the voyage cannot be proceeded on.

If the wages are fixed for the run, the crew are entitled not only to the proportion determined above, but a suitable allowance for their maintenance until the fate of the ship is decided. The master has, however, the right to send the crew home, in which case the indemnity under no circumstance to be reckoned longer than until their return home. If the voyage can be continued, the rules in § 30 are then applicable.

§ 34. When a Norwegian ship is wrecked in a foreign country, or sustains such damage that she cannot be repaired, the expenses of sending the crew home, as well as the outlay for their support, is to be defrayed by the Government. The same rule applies when the ship is brought up "and condemned," provided the declaration of war was not known at the time of the ship's departure from her last port of sailing. In every other case, for instance, when the declaration of war was known at the port of the ship's departure, or when the ship is sold, or any of the crew are left behind on account of sickness, the expenses incurred in sending them home shall be defrayed by the ship or owners. The above expenses, however, must under every circumstance, when called for, be advanced by the Consul.

Norwegian ships, in all cases where it devolves upon the Consul to provide for the sending the crews home, are compelled to take charge of such men, until arrival at their destination, or any other home port she touches at, in consideration of payment for their board and passage, according to the rate fixed by the King. Similar obligations devolve upon Norwegian ships with regard to Swedish seamen, provided reciprocity regulations in this respect exist in Sweden.

If any of the crew by their own indiscretion have brought on an illness which necessitates his being sent home, the rules with respect to the expenses, as laid down in § 32, are to be followed.

§ 35. Should any one of the crew be found unfit for the duty they have undertaken to perform, the master can, after having secured proofs of incapability, by the testimony of the best men in the ship, reduce their wages, or even stop them entirely; redress, however, is open to the party by appeal to the Courts.

§ 36. Any one having hired himself can be released from his engagement if he can prove that the master has ill-treated him in his service; or that he can himself obtain the command of a vessel; or that he, if a common seaman, can obtain the situation as mate; or generally, that since his engagement circumstances have arisen which would render its fulfilment a cause of serious prejudice to his future welfare. In the three last-mentioned cases, however, the party concerned is bound to procure an able and efficient substitute, willing to take upon himself the obligation specified in the agreement.

§ 37. For the wages earned on the voyage, since the vessel last left the port she belongs to, the crew have, viz.:—

(*a.*) In the ship, freight, and insurance money, the next priority after the claims specified in § 101 (*a*), and before any other liens; this right, however, to be valid, must be enforced within two months after the return of the ship from her voyage, or, inasmuch as the wages in part consist of a share of the profits of the voyage, within two months after the crew have become aware that the accounts are made up; and,

(*b.*) In the insolvent owner's estate as all other servants.

In the case mentioned in § 33, the crew have a priority of claim for wages in the wreck, inventory as well as freight of the remaining goods, and the insurance money after the salvage and other expenses consequent upon the wreck have been defrayed.

§ 38. The crew shall pay to the captain, or those who on his behalf take the

command, obedience in everything appertaining to the service of the ship, and shall likewise sustain good order on board, namely :—

The crew are expressly bound—

(*a.*) At the commencement of the voyage to be on board on the day stipulated in their agreement, or determined on by the master, in order to assist in the rigging and fitting out of the ship.

(*b.*) As well at the port of loading as of discharging, in harbour of refuge, or during the voyage, to work in stowing the cargo, ballasting, or discharging, as well as performing all work which concerns the ship or cargo, either on board or on shore, according to the custom of the port, and especially in keel-hauling, rigging, and the like, when in harbour of refuge, or otherwise when necessity for such work arises during the voyage.

(*c.*) When the ship has arrived at the port where the voyage finishes, to unload the cargo, discharge the ballast, unrig and moor the vessel.

§ 39. The mate shall perform such duties as the master may enjoin, and shall especially aid him in navigating the ship, and taking the necessary observations and dead reckoning, keeping the log-book, looking after the crew and provisions, the loading and discharging the cargo, and keeping the cargo-book.

§ 40. From the time the ship is ready for sea, not any of the crew can be detained for debt. Under no circumstances can an attachment be laid upon the wages, wearing apparel, or bedding of the crew, neither can those objects be sequestered or seized.

Abstract of Code relative to the Marine Population and Seamen of Norway.

All the inhabitants residing along the coast, who support themselves either by the coasting trade of the country, fisheries, or piloting, excepting the immediate branch pilots, are liable to be drawn for service in the so-called "District Coast Guards;" those who are not drawn are considered as forming the reserve.

All seamen are liable to be drawn for the naval service, that is, to serve on board the men-of-war, after completing their 22nd to the completion of their 35th year.

All those range under the denomination of "seamen" who have attained the character of at least "half A. B." at the commencement of the year in which they complete their 22nd year.

As "half A. B." are considered those who for twelve months, and "full A. B." those who for thirty months, after having completed their 25th year, have been employed on foreign voyages.

Registers are kept in every district of the seamen who are liable to be drawn, as long as he follows the sea, until such time as the term of his liability has ceased.

Those who intend to support themselves by employment on foreign voyages are bound to notify the same to the District Chief or Registrar, who in return, as a proof that he has fulfilled this duty, receives a "Seaman's Patent," without which no shipping-master can enter him on the ship's articles; neither can the master, without subjecting himself to severe fines, receive him on board.

Seamen who have acquired a mate's certificate, and served in that capacity for six months, cannot be compelled to serve in any other capacity.

Masters who have commanded a ship in the foreign trade for three years, cannot be drawn.

In times of peace the service is not very onerous, as it seldom exceeds six months at a time; and sixteen months' uninterrupted service is equivalent to having been drawn twice; if twenty-four months, thrice, and in like proportion.

If two brothers are drawn, one can demand to be exempted. Those are also exempted for the time, who when drawn, have hired themselves, and the vessel is to leave within six days, provided another man of that class can be drawn; if the vessel is ready and cleared, the man cannot be drawn.

Those who have not been drawn are free to hire themselves for any foreign voyage, excepting in case of war, when permission must be obtained from the District Chiefs.

Tripoli.

1. Never, under any circumstance.
2. No differential dues whatever are levied.
3. None whatever.
4. The answer to the preceding query solves the question.
5. There are none.
6. No such local laws exist here. The average rate of seamen's wages varies from 1*l.* 4*s.* to 2*l.* sterling a-month.

(Signed) G. F. HERMAN.

Tripoli, October 1, 1860.

Tunis.

1. No such prohibition exists understood for such articles, the importation and exportation of which are allowed.
2. Ships of all nations (natives included) pay the same dues, which vary from 35 to 70 piastres, according to tonnage. Ships that enter the port in ballast, and from stress of weather, and which do not enter into any transaction, pay no dues.
3. There is no variation.
4. There exist no differential dues, and therefore no drawbacks or repayments are made.
5. None.
6. There no local laws affecting seamen. Native seamen often take service in foreign vessels, and receive the wages paid to foreign seamen, according to agreements.

(Signed) RICHARD WOOD,
Her Majesty's Agent and Consul-General.

Tunis, October 27, 1860.

Turkey.

VARNA.

1. BRITISH ships are not prohibited in any case from bringing or taking cargo or passengers at this port from or to any part of the world.
2. There are no differential shipping dues of any description, imperial or local, levied on national, foreign, or British ships arriving and departing; the only due levied here is the sum of 2 piastres per 1,000 kilos of Constantinople, on those ships carrying cargo and passengers. Ships in ballast pay nothing.
3. Ships of all nations arriving from or clearing out for the United Kingdom or its Colonies, only pay the due above-mentioned of 2 piastres per kilo of Constantinople, without any variation.
4. Whenever an English ship, or a ship belonging to any other foreign country, is made to pay, through mistake or otherwise, more than the due above-mentioned, it can be recovered through the Consul of the nation to which the ship belongs. Whether this is the case or no with regard to Turkish ships, I cannot affirm.
5. None whatever.
6. There are no special laws or regulations respecting seamen. They are free to ship themselves or to land and work on shore, but they must be recognized by their respective authority; but if it is not known to what nation a foreign seamen belongs, he must give a guarantee for his good behaviour or leave the place, though, if he be a Turkish subject, there is no difficulty made in allowing him to remain here.

With regard to the wages of seamen, there are three different ways of paying them :—

1. They are paid by the month from 6 to 12 dollars per month.

2. By the voyage: the captain agrees with the seamen, for example, for a voyage from Constantinople to load at Varna, discharge at Constantinople, and return to Varna, for which the average rate is from 30 to 40 or 45 dollars for the voyage, according to the season of the year.

3. By shares; that is to say, the captain agrees with the seamen for a voyage, and when it is performed, they make their accounts, and the profit remaining from the freight is shared between the ship, the captain, and the seamen, these latter receiving shares in proportion to their respective rank and capacity.

This latter mode of payment of wages is the most common with the Turkish ships that trade in the Black Sea.

(Signed) HORATIO R. SUTER, *Consul.*

Varna, May 18, 1861.

CONSTANTINOPLE.

1. Not by Treaty, but a British vessel, partly loaded with gunpowder, shipped at Liverpool for Galatz, was lately stopped, and the gunpowder seized by the Porte. Representations were made to the Ambassadors.

2. There are no differential shipping dues.

3. None, there being no differential dues levied.

4. None.

5. None.

6. There are no laws or regulations of the Porte affecting seamen. The average rate of wages is 3*l.* to the Black Sea and Danube, and 2*l.* 10*s.* for ships bound downwards.

(Signed) A. CARLTON CUMBERBATCH, *Consul-General.*

DARDANELLES.

1. No.

2. No.

3. No.

4. No.

5. No.

6. There are no local laws or regulations in the ports of this Consulate respecting seamen. Most of them are employed in the coasting trade, where their earnings are entirely dependent on the greater or less amount of freight realised ; each individual forming part of the crew of a coasting vessel being, in fact, entitled by agreement to receive a greater or less share of the profits realised, according as his services are reckoned to be more or less valuable. The wages of the few seamen who engage for longer voyages average about 2*l.* 10*s.* per month.

(Signed) F. W. CALVERT, *Consul.*

Dardanelles, December 12, 1860.

SALONICA.

1. Not prohibited.

2. No shipping dues whatever are levied at this port, either on national, British, or foreign ships.

3 and 4. Answered in No. 2.

5. None.

6. There are no local laws exclusively affecting seamen. The average rate of wages is 7 Spanish dollars per month.

Salonica, October 2, 1860.

PREVESA.

1. No prohibition whatever exists at this port on taking cargo or passengers.

2. The only shipping dues paid at this port are those (Imperial) of the Health Office for bills of health on clearing; they are regulated by tonnage, without distinction of flag. The dues on a quarantine performed are regulated by same method. Both charges are Imperial.

3. The only difference is in the tonnage as stated above, and the same rule applies to all ports of the Empire.

4. No drawbacks or repayments whatever are made at this port.

5. No such regulations exist at this port.

6. No local laws or regulations exist at this port affecting seamen. The average rate of wages is 7 dollars (1*l.* 10*s.* 4*d.*) per month by agreement, and a great portion of seamen engaged in the small vessels of this port are part proprietors, either in the craft or cargo.

Prevesa, October 17, 1860.

BROUSSA.

1. No such prohibition is known to exist in any of the ports of this district.

2. There are no differential dues, and the only port dues levied, which are common to vessels of all flags, including Ottoman, are—

(1.) Anchorage, at the rate of 2 piastres, or 4*d.*, for every 25 tons burden.

(2.) For bills of health to the Ottoman Health Office, varying according to tariff, from 3 piastres, or about 6*d.*, for vessels of 25 tons, up to 32 piastres, or 5*s.* 6*d.*, the maximum for those of 300 tons and upwards.

3. There are no such distinctions.

4. Already answered in No. 3.

5. None.

6. No such laws or regulations are promulgated, or known to be in force; nor are there any usual rates of wages, the vessels belonging to the district ports being all small craft, and the crews generally sharing in the profits of the voyage.

Broussa, October 27, 1860.

SMYRNA.

1. No prohibition of any kind exists in reference to either goods or passengers.

2. The only dues payable by shipping is, anchorage $2\frac{1}{2}$ piastres, or 5*d.* per ship, whether national or foreign.

3. No difference whatever.

4. None whatever.

5. None whatever.

6. No special laws or regulations affecting seamen. The average rate of wages, within or without the Mediterranean, 2*l.* 10*s.* per month.

Smyrna, September 29, 1860.

RHODES.

1. In no case are British ships prohibited from bringing or taking any cargo or passengers at any of the ports in this Consular district from or to any part of the world.

2. Quarantine fees are levied in the different ports of Rhodes, Cyprus, Scio, and Mytilene, without distinction, on national, foreign, or British vessels, at the same rate, whether on a vessel with a cargo or in ballast. The harbour dues are only levied on Ottoman vessels, but usually European masters give a "bakshish" (present) in money to the Captain of the Port, equal to these dues.

3. The fees paid to the Quarantine Office for a bill of health are 2 piastres (4*d.*) for each 1,000 kilos (bushels), but never exceed 24 piastres (4*s.*) Another fee for the interrogatory is levied by this office, and is of 1 piastre for each

1,000 kilos, and never exceeds 20 piastres. The harbour dues at Rhodes and the other above-mentioned islands are from 1 to 2 piastres for each 1,000 kilos.

4. Under no circumstances are drawbacks or repayments ever made to national, foreign, or British vessels.

5. From the preceding answers it will be seen that there is no regulation entailing on British shipping any extra charge in these islands.

6. No local laws or regulations of the ports in this Consular district exist affecting seamen. The custom is to divide the profits of the vessel into shares. The owner takes half the profits, the master two or three shares thereof, the mate one and a-half, the seamen one each, and the boys a half or a quarter each. Whenever a foreign vessel requires a seaman, the master pays either fixed monthly wages, which are usually from 2*l.* to 3*l.* sterling, or makes a bargain with the seaman to give him so much for the voyage.

(Signed) ROBERT CAMPBELL, *Consul.*

British Consulate, Rhodes, October 2, 1860.

TREBIZOND.

1. No prohibition of any kind exists on British shipping at this port.
2. None.
3. None.
4. None.
5. None.
6. No laws or regulations affecting seamen exist. Seamen employed in Turkish shipping receive from 30*s.* to 40*s.* per month.

(Signed) FRAS. J. STEVENS, *Consul.*

Trebizond, September 21, 1860.

ALEXANDRETTA.

1. No.
2. No.
3. See answer to Query No. 2.
4. See answer to Query No. 2.
5. No.
6. There are not any local laws or regulations affecting seamen at this port The average rate of wages cannot be stated, as there are not any seamen to be procured here at any time.

(Signed) ARTHUR RABY, *Vice-Consul.*

British Vice-Consulate, Alexandretta, October 20, 1860.

BEYROUT.

1. No ; they are not.
2. No differential dues of any description are levied on national, foreign, or British ships.
5. None whatever.
6. There are no special laws or regulations affecting seamen. Seamen are generally paid by receiving a certain share in the profits realized.

Beyrout, September 19, 1860.

JEDDAH.

1. In no case.
2. No square-rigged ships pay any dues, nor any vessels belonging to natives of Jeddah, or to any foreign States. National buggalows not belonging to Jeddah pay, as anchorage-dues, on arriving from any place out of the Red Sea, 2 dollars. Those from Yemen, Abyssinia, and the ports of the Red Sea, pay, according to size, from 11 to 20 piastres, with the exception of those from Suez, which pay 1 dollar.
3. There are no variations.
4. No drawbacks are ever made.

5. There are no such regulations.

6. There are no laws affecting seamen in an especial manner.

The average rate of wages is, for Arabs, 6 dollars, for Indians, 4 dollars, and, for Malays, 8 dollars. Black Arabs, from Muscat, Zanzibar, and Abyssinia, obtain as high wages as Malays. Arabs are considered as good seamen as Malays, but the latter, from being more tractable, obtain higher average wages.

(Signed) G. E. STANLEY.

United States.

PORTLAND.

1. No; with the exception of the United States of America, where British vessels are prohibited from bringing or taking cargo from or to any American port. Vessels in ballast are allowed to carry passengers.

2. *Vide* pages 71 to 75, 77, and 91 to 95 in the work entitled "Decisions of the United States' Treasury Department under the Revenue Laws."

3. *Vide* pages 71 to 75, 77, and 91 to 95, in the work entitled "Decisions of the United States' Treasury Department under the Revenue Laws."

4. None.

5. None.

6. There are no peculiar port regulations affecting seamen further than the general laws of the country. The average rate of wages to seamen is 16 dollars per month.

(Signed) HENRY JOHN MURRAY, *Consul.*

British Consulate, Portland, October 2, 1860.

BOSTON.

1. British ships are not in any case prohibited from bringing or taking cargo or passengers at this port from or to any part of the world, excepting in the coastwise trade. This trade is reserved exclusively for national vessels. British vessels and other foreign vessels placed by Treaty, or other international stipulations, on the footing of national vessels, are at liberty to proceed from one port to another in the United States, in ballast, or to take in part of a cargo at one port and proceed to another for the purpose of completing their lading for foreign ports. See United States' Custom-house Guide, pp. 97-105.

2. No differential shipping-dues of any description, Federal or Local, are levied on national or British ships, arriving or departing. Neither are such dues levied on the ships of foreign nations, placed by Treaty or otherwise on the footing of national vessels. See United States' Custom-house Guide, pp. 78–83.

3. There are no variations in such dues dependent on the ships arriving from or clearing out from the United Kingdom or its Colonies, such ships being national, or British, or foreign ships, entitled to the privileges of national vessels. (For variations in respect to other ships see the work and pages above cited.)

4. Very few cases. See work above referred to, pp. 257–262.

5. No, not any.

6. Average rate of wages 16 dollars. For other particulars see work referred to, pp. 60–71.

Boston, October 27, 1860.

NEW YORK.

1. No prohibition whatever except in cases of cargo shipped in one part of the United States to be landed in another part of the United States.

2. There are none on British vessels or cargoes. There are tonnage duties or dues leviable by Treaty stipulations on French, Spanish, and other foreign vessels, and by law on vessels of nations having no Treaty with the United States; also on certain undocumented vessels the property of citizens of the United States or foreigners. There are also discriminating duties or dues on the

cargoes of such vessels. Vessels belonging to the following nations are admitted into ports of the United States on the same terms as vessels of the United States only, when laden with the produce or manufactures of the countries to which they belong. (1.) France. Vessels pay a tonnage duty of 94 cents per ton. N.B.—French vessels laden with the produce of Martinique, Guadaloupe, Cayenne, St. Pierre, and Miquelon; or, when direct from said islands, in ballast, are admitted on equal terms as to duty and tonnage with United States' vessels. (2.) Spain. Vessels arriving at ports of the United States from Spain or her adjacent islands, besides the additional or discriminatory duty of 10 per cent., pay a tonnage-duty of 5 cents per ton; from Cuba or Porto Rico pay a tonnage-duty equivalent to that levied on United States' vessels in those islands, and such further tonnage-duty as would be equivalent to the discriminating duty which would have been imposed on the cargoes imported in the same vessels, if such cargoes had been exported from Havana in vessels of the United States. No tonnage-duty is levied on Spanish vessels from Cuba or Porto Rico in ballast, or laden with molasses from thence, owing to reciprocal exemptions of United States' vessels from those ports under like circumstances. Spanish vessels from Cuba or Porto Rico (except as above) pay a tonnage-duty from Cuba 1 dollar 50 cents, from Porto Rico 87½ cents, 10 per cent. additional on their cargoes, and a discriminating duty equal to the export duty to which an United States' vessel would be liable in those ports over Spanish vessels. There is no discriminating duty on Spanish vessels with cargoes direct from Canary Islands. (3.) Hawaiian vessels. (4.) Pontifical States. (5.) Portugal and Colonies. Portuguese vessels from any country not liable to tonnage-duty. Vessels of above nations may bring the produce or manufactures of any other country, subject to a discriminating duty of 10 per cent., and (except Portugal) to tonnage-duty. (6, 7, 8.) Borneo, Hayti, and St. Domingo. Vessels subject to tonnage-duty of 1 dollar per ton. (9.) China vessels, tonnage-duty of 72½ cents per ton. (10.) Siam. Vessels to a measurement tonnage.

3. None applicable to British vessels.

French and Spanish vessels are entirely excluded from a portion of such trade under certain circumstances. In other cases there is a distinction of duty, and in some cases no duty.

4. On Spanish vessels alone the duty is returned, in some cases, on certain conditions. See answer to No. 2 as to vessels from Cuba and Porto Rico direct, laden with molasses or in ballast.

5. None.

6. The following dues are payable at this port, viz., United States' hospital fees, 20 cents per month each man; state hospital fees, captain, 1 dollar 50 cents; mate, 1 dollar; crew, 50 cents each, every foreign voyage. Harbour-master's fees, 1½ cent. per ton; average rate of wages, 16 dollars per month.

New York, November 8, 1860.

PHILADELPHIA.

1. Are not prohibited from carrying cargo or passengers to or from any foreign port. Carrying cargo or passengers, however, is prohibited in British or any foreign ships between different ports in the United States.

2. None.

3. None.

4. None.

5. None.

6. American seamen are not governed by any special laws at this port. The average rate of wages is 20 dollars per month.

(Signed) CHARLES E. H. KORTRIGHT.

Philadelphia, October 29, 1860.

RICHMOND.

1. British ships are not prohibited from bringing or taking cargo or passengers at this port from or to any part of the world, excepting other ports of the United States, a law of Congress prohibiting them from engaging in the coasting trade.

2. There are no differential shipping dues of any description levied by local or federal laws upon British ships or those of any other nation placed by Treaty

upon equal footing with ships of the United States. Ships not so placed pay, under Act of Congress, a tonnage duty, varying with different nations.

3. There are no variations.

4. See reply to No. 3.

5. None. A regulation of the Custom-house subjects the seamen of foreign ships who are placed in hospital to a charge of 75 cents (3*s.* 1½*d.*) a day for subsistence and medical attendance, for which the seamen of the United States pay a permanent tax of 20 cents (10*d.*) a month.

6. There are no local laws or regulations affecting white seamen; the laws, both local and State, forbid foreign negroes from going at large, unless attended by a white person, or having a written pass from a white person; and they cannot be discharged from a ship, except to go immediately from the State. The average rate of wages is 16 dollars (3*l.* 6*s.* 8*d.*) a month. This is the rate at present to nearly all parts, excepting Great Britain, which is 18 dollars (3*l.* 15*s.*)

Richmond, September 27, 1860.

CHARLESTON.

1. British ships are prohibited from bringing or taking cargo or passengers from any port in the United States to any other port in the United States. They are also prohibited from bringing into the United States from any part of the world mulattoes, or persons of colour, to be held to service or labour, and in the port of Charleston and other ports of the Southern States no free persons of colour are allowed to be introdueed, except under bond that they will remain on board the ships to which they belong. With these exceptions British ships may bring or take cargo or passengers from this port to any part of the world.

2. On and after the 1st of January, 1850 (on which day the Act of Parliament of 1849 altering the British Navigation laws went into effect), British vessels were admitted into the ports of the United States on the same terms as vessels of the United States, with the produce and manufacture of Great Britain or of any other country; that is, that such vessels and their cargoes are admitted into ports of the United States on the same terms as to duties, imposts, and charges as vessels of the United States and their cargoes.

3. There is no variation; it has been decided by the Circuit Court of the United States that British vessels bringing from British ports in Europe articles of the growth, produce, or manufacture of the British possessions in India are entitled to free entry.

4. There are no differential duties, as explained above.

5. British ships are placed on the same footing as national or foreign vessels in these particulars. There is no difference in the charges made.

6. By a State law of 1852, to harbour deserting seamen, and to inveigle or procure them to desert, is punishable by fine and imprisonment, not exceeding 300 dollars and three months. Sailor boarding-house keepers going on board vessels without the master's permission are punishable as above. By an Act of 1855 kidnapping seamen is punishable by fine and imprisonment at the discretion of the Court. By an Act of 1836 sailor boarding-house keepers are not allowed to recover debts exceeding 1 dollar from seamen, and no debt exceeding 1 dollar can be recovered by others from them after they have signed a ship's articles. Seamen's effects cannot be detained for payment of debts. Deserters can only be arrested by the Consular officers of nations having Treaties to that effect with the United States, but practically in this port British seamen are arrested by the Magistrates on my request.

The average rate of wages in this port may be said to be 18 dollars a month, with one month's advance.

(Signed) ROBERT BUNCH, *Consul.*

British Consulate, Charleston, October 24, 1860.

SAVANNAH.

1. No prohibition, excepting as regards the coasting trade of the United States.

2. No differential dues of any description, Imperial or local, are levied on national or British ships arriving or departing. French vessels arriving from any place in ballast or laden are liable to a tonnage duty of 94 cents, excepting

vessels, whether laden or in ballast, from Martinique, Guadaloupe, Cayenne, St. Pierre, and Miquelon, which are exempt. French vessels from France are not liable to a discriminating duty on cargo, but from ports of any other nation a discriminating duty of 10 per cent.

No special arrangement exists between the Spanish and American Governments respecting tonnage dues, or discriminating duties on vessels laden or in ballast, arriving in ports of their respective countries. Whenever Spain charges American ships entering Spanish ports, or those of her colours, laden or in ballast, any dues or duties, the American Government charges Spanish vessels entering American ports a similar amount. At present no dues or duties are charged by either country.

3. None.

4. None.

5. None.

6. The law in this State in relation to shipping seamen is very good, but it is always violated. It is enacted in section 7 of the Law of 1766 that no master of any ship or vessel shall hire any seaman or mariner belonging to or pretending to be discharged from any other vessel, unless such seaman shall have a certificate of his discharge from the master of the vessel in which he last served, under a penalty of 10*l.*

The rate of wages varies much and ranges from 20 to 25 dollars per month in American vessels. British ships, when wanting hands to fill up the place of deserters, have to pay from 30 to 50 dollars for the run to Liverpool.

NEW ORLEANS.

1. British ships are not prohibited by the United States' law from bringing or taking cargo or passengers from or to any part of the world, excepting from one port or another of the United States.

2. There are differential dues of various denominations and descriptions, which are fully detailed in the statements hereunto annexed.

Statement respecting differential dues in conformity with the Revenue Laws of the United States.—Vessels belonging to the following nations are admitted into the ports of the United States on the same terms as American vessels, with the produce or manufactures of their own or any other country, viz. :—

Hanseatic Towns, Austria, Norway, Hamburgh, Lubeck, Greece, Denmark, Tuscany, Ecuador, Bremen, Sardinia, Genoa, Belgium, Mecklenburg-Schwerin, Prussia, Venezuela, Russia, Duchy of Oldenburg, New Granada, Brazil, Sweden, Central America, Hanover.

Vessels belonging to the following nations, with whom the United States have reciprocal Treaties on the footing of the "most favoured nations," are at present admitted into the ports of the United States on the same terms as American vessels, with the produce or manufactures of their own or any other country, viz. :—

Chile, Muscat, Mexico, Columbia, Ottoman Porte, Peru, Bolivia, Great Britain and her possessions.

Since the 1st January, 1850, British vessels have been admitted into ports of the United States upon the same terms as American vessels, with the produce and manufactures of their own or any other country, under the following instructions issued by the Treasury Department of the United States, under date October 15, 1849, for the information of the officers of the Customs, and others interested.

"First. In consequence of the alterations of the British Navigation Laws, British vessels from British or foreign ports will (under our existing laws), after the 1st January, 1850, be allowed to enter in our ports with cargoes of the growth, manufactures, or production of any part of the world.

"Second. Such vessels and their cargoes will be admitted from and after the date mentioned, on the same terms as to duties, imports, and charges, as vessels of the United States and their cargoes."

Vessels belonging to the following nations are admitted into the ports of the United States on the same terms as American vessels, only when laden with the produce and manufactures of the country to which the vessel belongs, viz. :—

Rome, Kingdom of the Pope, Two Sicilies, Portugal and colonies.

Netherlands.—The vessels of the Netherlands may import any goods from her ports in Europe, on equal terms with American vessels, but when from her colonies or other countries, are subject to discriminating duty.

France.—Tonnage duty 94 cents per ton in both countries. Consuls to certify to the origin of the cargo.

French vessels laden with the produce of Martinique, Guadaloupe, St. Pierre, Miquelon, are admitted on equal terms as to duty and tonnage.

Vessels belonging to the nations above enumerated, may import the produce and manufactures of other countries subject to the payment of discriminating duty, and (except Portugal) to the payment of tonnage duty.

Vessels belonging to the following nations are subject to tonnage duty, and discriminating duty on their cargoes, as foreign vessels, whether laden with the produce or manufactures of their own or any other country, viz. :—

China, Hayti, Argentine Republic, Uruguay,-1 dollar per ton, and 10 per cent. additional duty.

Spain.—Ten per cent. additional duty, and similar tonnage duty as is exacted from American vessels in Spanish ports.

Foreign vessels from ports prohibited to American vessels, pay 2 dollars per ton, 50 cents light money per ton, and 10 per cent. additional duty on the cargo.

American vessels on arrival from foreign ports are subject to a duty of 50 cents per ton, unless the officers and two-thirds of the crew are for the whole voyage American citizens; the only exception provided for by law is in case of sickness, death, desertion, or being made prisoners of war.

3. In reply to this question reference is made to the statement annexed to reply to Question No. 2, which contains the answer called for in this query.

4. No drawbacks or repayment of any differential duty levied in accordance with the Revenue Laws are refunded by the United States' Government under any circumstances.

5. There are no regulations specially affecting British or foreign ships, their cargoes or passengers, and they are placed upon the same equality as vessels belonging to the United States, with the exception of such foreign vessels from ports prohibited to United States' vessels.

6. Several laws have been from time to time enacted by the State Legislature and local authorities for the better regulation of shipping seamen, also for their protection from the impositions practised upon them by boarding-house keepers, and a class of men in their employ called "runners," whose occupation is to entice seamen from their vessels before the voyage for which they shipped is completed. These laws are seldom enforced, and have become almost obsolete. The rate of wages depends entirely upon the demand for and the supply of seamen; on long voyages, the average may be set down at about 18 dollars per month; on short ones, viz., to England and the Continent, the advance system prevails, the amounts paid being from 25 to 75 dollars, according to circumstances.

New Orleans, November 7, 1860.

GALVESTON.

1. British ships are not prohibited from bringing or taking cargo or passengers at the port of Galveston from or to any part of the world, except from or to a port in the United States of America.

2. There are no differential shipping dues of any description levied on national, foreign, or British ships at the port of Galveston, other than those levied in accordance with the International Treaties with the United States, and the general Acts of Congress relating to commerce.

Galveston, October 6, 1860.

SAN FRANCISCO.

1. British ships are prohibited from bringing or taking cargo and passengers coastwise.

2. All vessels pay 4 cents (about 2*d.*) a ton local tonnage dues on entering the port. National vessels, and those belonging to Great Britain, Russia, Prussia, Austria, Denmark, Bremen, Hanseatic Towns, the Netherlands, Sardinia, Sweden, Norway, Belgium, Tuscany, Oldenburg, Greece, Mecklenburg-Schwerin,

Hanover, Central America, Ecuador, New Granada, Brazils, Chile, Columbia, Muscat, Turkey, Mexico, and Peru, are not subject, on arriving in or departing from ports of the United States, to any Imperial tonnage dues.

Portuguese vessels pay no Imperial tonnage dues; but when they are laden with produce or manufactures not belonging to Portugal, their cargoes pay an additional duty of 10 per cent. on the ordinary amount of duty leviable.

Vessels belonging to the Roman States and Two Sicilies pay Imperial tonnage dues of 1 dollar a-ton, and their cargoes the extra duty of 10 per cent. on the ordinary duty leviable when laden with produce or manufactures not belonging to their respective countries.

French vessels pay an Imperial tonnage duty of 94 cents, or about 4*s.* 1*d.*, a-ton; and when not laden with the produce or manufactures of France, their cargoes pay the extra 10 per cent. duty.

Spanish vessels pay an Imperial tonnage duty of 5 cents (about $2\frac{1}{2}d.$) a-ton only when coming from Spain; but their cargoes always pay the extra duty of 10 per cent.

Vessels belonging to China, Hayti, Argentine Republic, and Uruguay, always pay an Imperial tonnage duty of 1 dollar a-ton, and their cargoes the extra duty of 10 per cent.

3. As stated above, Spanish vessels pay $2\frac{1}{2}d.$ a-ton only when arriving from Spain.

4. No drawbacks or repayments allowed.

5. There are none.

6. There are no laws and regulations specially affecting seamen. The average rate of wages is 25 rix-dollars, or about 5*l.*, a-month.

(Signed) WM. LANE BOOKER, *Consul.*

San Francisco, November 9, 1860.

CHICAGO.

1. Only to other United States' ports. The 4th section of the Act of Congress, approved March 1, 1817, prohibits vessels belonging, in whole or in part, to a subject of any foreign Power, from engaging in the coasting trade of the United States.

2. None. British vessels enter all ports on Lake Michigan under the provisions of the Reciprocity Treaty between Great Britain and the United States, June 4, 1854, by Article IV of which it is agreed that British subjects shall have the right freely to navigate Lake Michigan with their vessels so long as the privilege of navigating the River St. Lawrence secured to American vessels by another clause of the same Article should continue.

3. No.

4. There being no dues, there are no drawbacks.

5. The only regulation affecting British or other foreign ships is under the Act of Congress, March 3, 1817, sec. 1, which requires the deposit of the ship's papers with the Consul of the country to which the ship belongs.

6. The regulations of this port affecting seamen, as in other ports of the United States, are based on various Acts of Congress, commencing with the Act of January 4, 1790.

Under these regulations the master of each vessel is bound, under penalty of 20 dollars (4*l.* sterling) for each seaman, previous to proceeding on the voyage to any port but one in an adjoining State, to make an agreement in writing declaring the voyage or voyages, term or terms of time, for which each seaman is shipped. Each sailor pays 20 cents per month "hospital money" to the Federal Government, which entitles him to admission to a marine hospital in case of illness. To obtain admission to the hospital, the sailor must be either a naturalized citizen, or have sailed in a United States' vessel for three years.

British vessels belonging to the Province of Upper Canada never bring agreements, and, in shipping men from this port, do not comply with section 160 of the Imperial Merchant Shipping Act, 1854, requiring them to engage them before the Consul.

(Signed) J. EDWARD WILKINS,

Chicago, December 8, 1860. *Her Britannic Majesty's Consul.*

BUFFALO.

1. All trade is open to British ships, with the single exception of the coasting trade.

2. No differential dues of any kind.

3. None.

4. None.

5. None.

6. There are no local regulations at this port affecting seamen. By the United States' laws, a deduction of 20 cents per month is made from seamen's wages for the Hospital Fund. A British seaman must serve three years on American vessels to be entitled to the benefit of hospital attendance.

The average wages at this port are 24 dollars per month.

Buffalo, October 13, 1860.

China. (Foo-chow.)

1. The Treaty of Nanking prohibits British ships from frequenting any ports of China save those opened for trade, and this interdict is understood to hold good as regards vessels under all flags. The Tariff annexed to the Treaty of Nanking contains no prohibition against the import or export of any particular article of merchandize. The local regulations of this port forbid the export hence of materials for junk-building, namely, putty, hemp, coir, masts, rudders, anchors, bamboo poles, and camphor-wood, it being feared that these may be used for the construction of piratical craft. They also declare the export of iron pans and peas to be illegal, as these may be made into guns and shot; and they prohibit the taking out of grain and copper cash, in order to prevent a drain of these articles. These prohibitions, however, are only strictly carried out in the case of national vessels, a bribe by the shipper, or a message from the Consul, being sufficient to remove the difficulty as regards foreign ships. The carrying away of emigrant passengers is under a standing interdict.

2. All ships, British and foreign, are supposed to pay dues and duties according to the Tariffs which have been conceded to the leading foreign Government. No one flag enjoys a privilege in preference to another. National vessels, and the merchandize they carry, are subject to dues under local regulations, the rates prescribed in which are of a less burdensome character than those payable under foreign Tariffs; and the amount of attention thereto depends mainly on the influence of the parties concerned with the authorities, and on their power to purchase partial or entire exemption. This remark refers only to the coasting trade, to which national vessels entirely confine themselves. Foreign vessels have of late years been largely engaged in the coasting trade, and the authorities have been liberal enough to permit them to come under the same category as national vessels, as respects duty on merchandize.

3. No variations of this kind exist.

4. British and foreign import merchandize, which has paid duty at any one of the five ports of China, may, if found unsaleable at such port, pass in to this port under an exemption certificate; and export goods may also be brought hither from another port, for eventual shipment upon the same terms. Ships which have paid tonnage dues at any Chinese port may also be exempted from a second charge on entrance here, provided they show a certificate of payment at the port they last visited. In the case of a ship that runs periodically up and down the coast, the authorities only require the payment of tonnage dues once in a definite number of months. National vessels enjoy no such privilege, as far as I can understand. They pay a yearly sum to the local authorities for their sailing letters with customary fees and presents, and they are charged duty on their merchandize in and out, no matter whence they come, and whither they go.

5. No.

6. There are no local regulations affecting seamen, for whom, as a class, the Chinese have not legislated.

Foreign seamen are subject to the laws of the nation to which their ship may belong. Chinese seamen sailing in junks, as a general rule, have some share in the venture, and the rate of remuneration of course depends on such share. Foreign seamen are not properly dischargeable here save into other ships;

and the few engagements secured by runaways and such like are not sufficient to establish a rate. Chinese who are engaged by foreign vessels as sailors get 8 to 10 dollars a-month; as stewards and cooks, 12 to 15 dollars.

(Signed) W. H. MEDHURST, *Consul.*

November 22, 1860.

Japan. (Nagasaki.)

1. British ships cannot take cargo to any ports of Japan excepting those opened by Treaty. Japanese passengers are not allowed to travel in foreign ships, British of course included. British vessels are prohibited from landing passengers who are subjects of nations not having Treaties with Japan, such prohibition being issued by British authority, in conformity with the just wishes of the Japanese authorities. (See Article 6 of the Port Regulations annexed in reply to Query 6 of this paper.)

2. There are none such.

3. There are none such.

4. Answered by the preceding.

5. There are none such.

6. The only local regulations affecting seamen are contained in the accompanying copy of Port Regulations.

There is no rate of wages ruling for this port in particular. Seamen are only discharged from their vessels under admissible circumstances, when provided with other immediate employment. Any question as to amount of wages under a new engagement is settled by the rate given to the rest of the crew, who have generally been shipped in the neighbouring port of Shanghae, in China.

(Signed) GEO. MORRISON, *Consul.*

Nagasaki, Japan, November 1860.

Notification (No. 5.)

Her Majesty's Envoy Extraordinary, Minister Plenipotentiary, and Consul-General in Japan, having examined and approved of the annexed Regulations for the port of Nagasaki, they are now notified for public information.

By order,

(Signed) ABEL A. J. GOWER.

Her Majesty's Legation, Yeddo, June 20, 1860.

Regulations for British Subjects in the Port and Harbour of Nagasaki.

1. The harbour of Nagasaki extends from the town to the Island of Papenberg.

2. Information as to the limits of the anchorage within which cargo may be discharged and shipped will be obtained at the Consulate Office. Cargo discharged or shipped beyond such limits will be subject to confiscation.

3. Every British vessel on entering the port must show her colours, and keep them hoisted until she shall have been reported at the Consulate, and her papers deposited there.

4. No boat or vessel, the property of a British subject, but not provided with a British sailing letter, or certificate of registry, shall hoist the British ensign within the port or anchorage, nor shall she exhibit within such limits any flag so similar to the British ensign as not to be distinguishable from it: neither shall any British subject hoist the British ensign (or any flag not distinguishable from it) over any residence or place on shore, without special authority so to do.

5. Masters of vessels, on depositing their ships' papers at the Consulate Office, must also deliver a copy of the import manifest, together with a list of all passengers and persons not forming part of the registered crew on board.

6. Masters of British vessels must not permit foreigners not being subjects of Treaty Powers to land without special permission so to do, and they will be held liable to provide a return passage for such foreign subjects as they may bring to the port, in addition to any penalty they may incur for breach of regulation.

7. When a vessel is ready to leave the port, the master will obtain a port clearance from the Custom-house, which document, together with a manifest of his export cargo, and a list of persons (not forming part of the crew) intending to leave the port in his vessel, must be delivered at the Consulate Office before the ship's papers can be returned to him.

8. Stone or ballast shall not be thrown overboard within the limits of the harbour.

9. Any vessel having on board any large quantity of gunpowder or other combustible must, until its discharge, anchor only in such berth as shall be assigned to her.

10. Masters of vessels will be held accountable for the conduct of their crews on shore; and no seaman must be allowed on shore except between the hours of sunrise and sunset.

11. Seamen found on shore after sunset, or at any time drunk or disorderly, will be apprehended; and any fine inflicted which he may be unable to pay will be levied upon the master of the vessel to which he belongs, besides such further penalty as may be incurred by the master for any neglect on his part.

12. Should any seaman absent himself from his vessel without permission, the master shall forthwith report the same at the Consulate Office.

13. No seaman or other person belonging to a British ship may be discharged or left behind, without the express sanction of the Consul, and in conformity with such stipulations as he may require.

14. No British subject may establish either a boarding-house, eating-house, or other public house of entertainment, without the sanction of the Consul, and under such conditions as he may require. Any person harbouring a seaman who is a deserter, or who cannot produce his discharge, with written sanction from the Consul to reside on shore, will be liable to the penalty attending breach of these Regulations.

15. Every British subject intending to reside on shore must register his name at the Consulate Office within ten days after his arrival; and any British subject having in his employ a subject of a nation not entitled by Treaty to have residence in Japan, must register the name of such servant, for whose behaviour he will be held accountable.

16. The discharge of fire-arms on shore in the neighbourhood of residences or thoroughfares, or afloat within the limits of the anchorage, is strictly prohibited.

17. All cases of death occurring, either afloat or on shore, must be immediately reported at the Consulate Office.

18. British subjects are strictly prohibited from using violence against against Japanese offenders, or taking the law into their own hands, unless in strict self-defence, and where they are menaced with bodily injury. Any Japanese guilty of an offence may be detained and delivered over to the Custom-house officials, from whom a receipt may be claimed, stating the name of the offender, the offence charged against him, and the name of the complainant. The matter should then be reported at the Consulate Office.

19. Riding quickly through the streets of the town is strictly prohibited.

20. The distance to which British subjects may extend their excursions is limited by Treaty to the Imperial territory around Nagasaki. The limits in several directions are marked by a notice in English, under the hand of the Consul. Fuller information can be obtained at the Consulate Office. Persons wilfully breaking the Regulation in this respect, or refusing to return when so requested by Japanese officials, will subject themselves to be brought back by force, and to any further penalty which may be adjudged appropriate.

21. Resistance by force to Japanese officers in the exercise of their duty will entail severe penalties.

22. Any violation of the laws or customs of the country, so as wilfully to cause alarm or give offence (save in so far as such laws and customs have been abrogated in favour of foreigners), is strictly prohibited.

23. The breach of any of the foregoing Regulations will entail upon the offender a penalty not exceeding 500 dollars, or three months' imprisonment.

(Signed) GEO. MORRISON,
Her Britannic Majesty's Consul.

Her Britannic Majesty's Consulate,
Nagasaki, May 1860.

Siam. (Bangkok.)

1. Fire-arms, shot, or gunpowder are prohibited from being sold to any party but the Siamese Government. Should that Government not require these articles, they must be re-exported at the cost of the parties concerned.

Opium may be imported free of duty; but can only be sold to the opium-farmer or his agents. In the event of no arrangement being effected for the sale of the opium, it shall be re-exported, and no impost or duty shall be levied thereon. Any infringement of this regulation shall subject the opium to seizure and confiscation.

2. Vessels of nations in Treaty of Friendship and Commerce with Siam have to pay import and export duties alike, namely, on goods from abroad landed at Bangkok, at present the only port for foreign vessels, 3 per cent. on their value, and upon such articles as are exported such a duty as is specified in the Tariff attached to the Treaty, which includes inland and transit taxes. I append a copy of this Tariff. These export duties are paid alike upon goods or produce whether shipped in British vessels and those of Treaty nations or in Siamese and Chinese vessels and junks. Any privilege which may hereafter be granted to Siamese vessels or junks shall be equally enjoyed by those of nations in Treaty with Siam.

Vessels of nations that have no Treaty with Siam pay the same duties as those of nations that have Treaties.

Vessels arriving in ballast, whether with or without passengers, are only subjected to the pilot dues and entry fees.

3. No such variation exists in Siam.

4. Drawbacks to the full amount of duty is allowed upon goods imported in vessels of the Treaty nations, that is to say, should such goods have been found unsaleable and are re-exported.

5. None whatever.

6. Seamen, lascars, and others belonging to vessels in the port of Bangkok are not permitted to go on shore without being in charge of a responsible officer of the vessel to which they belong; they are strictly prohibited from wearing or carrying their side knives; they are not permitted to commit any trespass within the precincts of the Siamese temples, nor to enter the dwelling of any of the inhabitants without permission.

Most of the Siamese seamen out of this port are the property of noblemen, and are let out at the rate of wages per month, including provisions, at 20 ticals (equal to 2*l.* 10*s.*) per month for the serang who superintends the native crews, 14 ticals (equal to 1*l.* 15*s.*) to the tindal, next to him in authority, and 10 ticals (equal to 1*l.* 5*s.*) for the common seamen.

It is so seldom that white persons are engaged here either from Europe or America that no rate of wages can be stated.

(Signed) ROBERT H. SCHOMBURGK,
Her Majesty's Consul.

British Consulate, Bangkok, December 19, 1860.

Tariff of Export and Inland Duties to be Levied on Articles of Trade.

§ 1. The undermentioned articles shall be entirely free from inland or other taxes, on production or transit, and shall pay export duty as follows:—

	T.	s.	f.	
1. Ivory	10	0	0	per picul
2. Gamboge	6	0	0	„
3. Rhinoceros horns	50	0	0	„
4. Cardamums, best	14	0	0	„
5. Ditto, bastard	6	0	0	„
6. Dried mussels	1	0	0	„
7. Pelican's quills	2	2	0	„
8. Betel nut, dried	1	0	0	„
9. Krachi wood	0	2	0	„
10. Shark's fins, white	6	0	0	„
11. Ditto, black	3	0	0	„
12. Lukkrabau seed	0	2	0	„
13. Peacock's tails, 10 ticals per 100.				
14. Buffalo and cow bones, 3 hun per picul.				
15. Rhinoceros hides	0	2	0	„

	T.	s.	f.	
16. Hide cuttings	0	1	0	per picul.
17. Turtle shells	1	0	0	„
18. Soft ditto	1	0	0	„
19. Beche de mer	3	0	0	„
20. Fish maws	3	0	0	„
21. Birds' nests, uncleaned, 20 per cent.				
22. Kingfisher's feathers, 6 ticals per 100.				
23. Cutch	0	2	0	„
24. Beyche seed (Nux vomica)	0	2	0	„
25. Pungtarai seed..	0	2	0	„
26. Gum Benjamin	4	0	0	„
27. Angrai bark	0	2	0	„
28. Agilla wood	2	0	0	„
29. Ray skins	3	0	0	„
30. Old deer's horns	0	1	0	„
31. Soft, or young ditto, 10 per cent.				
32. Deer hides, fine, 8 ticals per 100.				
33. Ditto, common, 3 ticals per 100.				
34. Deer sinews	4	0	0	„
35. Buffalo and cow hides	1	0	0	„
36. Elephants' bones	1	0	0	„
37. Tigers' bones	5	0	0	„
38. Buffalo horns	0	1	0	„
39. Elephant's hides	0	1	0	„
40. Tiger skins, per skin, 1 salung.				
41. Armadillo skins	4	0	0	„
42. Sticklac	1	1	0	„
43. Hemp	1	2	0	„
44. Dried fish ("plaheng")	1	2	0	„
45. Ditto ("plasalit")	1	0	0	„
46. Sapan wood	0	2	1	„
47. Salt meat	2	0	0	„
48. Mangrove bark	0	1	0	„
49. Rosewood	0	2	0	„
50. Ebony .. .. :	1	1	0	„
51. Rice, per koyan, 4 ticals.				

§ 2. The undermentioned articles being subject to the inland or transit duties herein named, and which shall not be increased, shall be exempt from export duty :—

52. Sugar, white	0	2	0	per picul.
53. Ditto, red	0	1	0	„
54. Cotton, clean and uncleaned, 10 per cent.				
55. Pepper	1	0	0	„
56. Salt fish ("platu") 1 tical per 10,000.				
57. Beans and peas, 1-12th.				
58. Dried prawns, 1-12th.				
59. Tilseed, 1-12th.				
60. Silk, raw, 1-12th.				
61. Bees'-wax, 1-15th.				
62. Tallow	1	0	0	„
63. Salt, per koyan	6	0	0	„
64. Tobacco, per 1,000 bundles	1	2	0	

§ 3. All goods or produce unenumerated in this Tariff shall be free of export duty, and shall only be subject to one inland tax or transit duty, not exceeding the rate now paid.

(L.S.) JOHN BOWRING.

(Signatures and Seals of the Five Siamese Plenipotentiaries.)

N.B.—The true value of the Siamese tical or bart is 2*s.* 6*d.* sterling, nearly 57 cents. It usually costs by way of exchange about 60 cents.

RETURN to an Order of the Honourable The House of Commons, dated 18 February 1862;—*for*,

RETURN "of the NUMBER and TONNAGE of SAILING VESSELS Registered at each of the Ports of *Great Britain* and *Ireland*, including the *Isle of Man* and the *Channel Islands*, distinguishing those under and those above Fifty Tons Register, on the 31st day of December 1861:"

"Similar RETURN of STEAM VESSELS and their TONNAGE:"

"RETURN of the NUMBER and TONNAGE of VESSELS that entered and cleared Coastwise, at each of the Ports of *Great Britain* and *Ireland*, *Isle of Man*, and *Channel Islands* (including their repeated Voyages), distinguishing British from Foreign Vessels, and Steam from Sailing Vessels, between the 31st day of December 1860 and the 31st day of December 1861:"

"Like RETURN from and to the COLONIES; further distinguishing British from Foreign Vessels; also, from and to FOREIGN PORTS, also distinguishing British from Foreign Vessels:"

"Aggregate RETURN of the NUMBER and TONNAGE of VESSELS entered and cleared at each of the Ports of *Great Britain* and *Ireland*, *Isle of Man*, and *Channel Islands* (including their repeated Voyages), in the Coasting, Colonial, and Foreign Trades, in the Year 1861; distinguishing British from Foreign Vessels:"

"RETURN of the NUMBER and TONNAGE of SAILING VESSELS Registered at each of the Ports of the Colonies of the United Kingdom respectively, distinguishing those under and those above Fifty Tons Register, on the 31st day of December 1861:"

"Similar RETURN of STEAM VESSELS and their TONNAGE:"

"RETURNS of the NUMBER and TONNAGE of NEW VESSELS Built in the United Kingdom, and at each of the British Possessions respectively (distinguishing Timber from Iron and Steam from Sailing Vessels), and Registered as British Ships in the Year 1861:"

"Of the NUMBER of VESSELS, with their TONNAGE (distinguishing Timber from Iron and Steam from Sailing Vessels), that were Registered in the United Kingdom as NEW SHIPS; similar RETURN of VESSELS Sold and Transferred; similar RETURN of VESSELS Wrecked; and, similar RETURN of VESSELS Broken up, in the Year 1861:"

"Of the NUMBER of COLONIAL-BUILT VESSELS, and their TONNAGE, Registered at each of the Ports of the United Kingdom, in the Year 1861; distinguishing the Number and Tonnage of each Colony respectively:"

"Similar RETURN of the NUMBER of FOREIGN-BUILT VESSELS and their TONNAGE:"

"And, RETURN of the SHIPPING employed in the Trade of the United Kingdom, exhibiting the NUMBER and TONNAGE of VESSELS that entered Inwards and cleared Outwards (including their repeated Voyages), separating British from Foreign Vessels, also Steam from Sailing Vessels, and distinguishing the Trade with each Country, in the Year 1861 (in continuation of Parliamentary Paper, No. 261, of Session 1861)."

(*Mr. Ingham.*)

Ordered, by The House of Commons, *to be Printed*,
2 *June* 1862.

RETURN of the Number and Tonnage of Sailing Vessels Registered at each of the Ports of *Great Britain* and *Ireland*, including the *Isle of Man* and the *Channel Islands*, distinguishing those under and those above Fifty Tons Register, on the 31st day of December 1861:—Also, a Similar Return of Steam Vessels and their Tonnage.

	Sailing Vessels				Steam Vessels			
	Of and under 50 Tons.		Above 50 Tons.		Of and under 50 Tons.		Above 50 Tons.	
ENGLAND:	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Aberystwith	107	3,751	254	27,942	-	-	1	59
Arundel	44	1,201	52	7,566	1	32	—	—
Barnstaple	50	1,620	31	3,403	—	—	—	—
Beaumaris	130	4,262	153	14,103	—	—	—	—
Berwick	17	586	19	2,164	1	11	—	—
Bideford	65	2,110	67	7,871	-	-	1	74
Boston	90	3,247	45	3,276	3	51	—	—
Bridgwater	77	2,891	59	11,131	2	21	1	98
Bridport	1	25	14	1,648	—	—	—	—
Bristol	182	5,323	204	62,648	21	705	22	4,182
Caernarvon	172	5,764	328	32,325	1	11	1	88
Cardiff	19	548	59	12,388	18	375	4	344
Cardigan	124	3,668	74	7,070	—	—	—	—
Carlisle	12	444	13	1,714	1	38	3	467
Chepstow	40	1,124	14	1,023	-	-	1	115
Chester	60	2,240	54	3,896	3	87	10	2,762
Colchester	196	3,719	97	12,639	—	—	—	—
Cowes	149	3,787	57	5,760	2	56	2	126
Dartmouth	184	5,969	273	37,873	6	154	—	—
Deal	10	164	1	105	—	—	—	—
Dover	29	859	25	3,041	1	25	2	133
Exeter	34	906	117	16,858	1	37	—	—
Falmouth	48	1,507	94	12,370	2	32	—	—
Faversham	206	5,267	140	18,876	1	9	—	—
Fleetwood	46	1,363	48	13,656	1	25	3	1,224
Folkestone	7	111	22	3,098	—	—	—	—
Fowey	39	1,380	128	12,688	-	-	1	52
Gainsborough	7	279	2	171	5	173	5	402
Gloucester	300	7,749	72	9,119	5	129	2	154
Goole	221	9,226	325	25,618	7	137	10	1,834
Grimsby	143	4,599	22	2,074	6	94	7	2,084
Hartlepool	5	91	153	34,912	-	-	3	1,054
Ditto, West	4	98	31	6,318	4	52	10	3,113
Harwich	68	2,083	50	4,985	—	—	—	—
Hull	362	13,801	157	36,117	13	229	57	22,901
Ipswich	56	1,872	125	13,839	6	262	3	236
Lancaster	36	1,203	94	11,377	4	109	7	1,312
Liverpool	286	10,239	2,071	1,007,052	36	1,330	203	79,457
Llanelly	33	953	47	5,165	1	6	1	113
Lowestoft	131	2,982	43	4,222	4	70	3	876
Lyme	5	148	15	1,729	—	—	—	—
Lynn	63	2,157	96	13,191	—	—	—	—
Maldon	91	2,860	56	6,234	—	—	—	—
Maryport	11	217	103	19,202	4	99	—	—
Middlesborough	4	129	39	6,837	10	198	5	1,805
Milford	81	2,238	68	8,979	1	28	—	—
Newcastle	138	3,720	372	111,793	94	1,486	30	10,747
Newhaven	11	212	13	2,233	—	—	—	—
Newport	14	533	71	13,128	2	55	1	272
Padstow	63	2,461	67	9,243	—	—	—	—
Penzance	21	597	73	7,836	1	20	—	—
Plymouth	227	6,859	207	38,552	9	282	3	347
Poole	45	1,230	67	12,321	1	22	—	—
Portsmouth	148	3,824	96	11,505	4	104	4	245
Preston	63	2,445	42	3,013	2	60	1	312
Ramsgate	74	2,004	32	4,014	1	10	—	—
Rochester	406	13,477	72	8,713	7	270	—	—
Rye	59	1,335	54	5,400	1	21	—	—
Saint Ives	61	1,267	99	10,770	-	-	2	280
Scarborough	106	3,656	120	33,432	1	44	1	117
Scilly	15	448	34	5,755	-	-	1	67
Shields	23	697	690	190,768	140	2,428	6	644
Ditto, South	2	61	299	80,460	13	220	—	—
Shoreham	32	614	100	18,801	1	15	—	—
Southampton	140	3,817	113	16,101	13	344	20	5,373
Stockton	14	360	62	15,899	12	211	4	893
Sunderland	116	3,369	890	233,016	54	742	28	12,166
Swansea	38	1,177	102	18,496	12	300	6	588
Teignmouth	11	284	52	6,499	1	19	—	—
Truro	13	435	56	5,110	—	—	—	—

	Sailing Vessels				Steam Vessels			
	Of and under 50 Tons.		Above 50 Tons.		Of and under 50 Tons.		Above 50 Tons.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
England—*cont^d.*								
Wells	79	1,941	84	8,570	2	29	—	—
Weymouth	24	665	50	5,852	4	82	6	653
Whitby	63	2,145	381	69,303	3	60	1	107
Whitehaven	13	269	169	26,753	1	37	2	498
Wisbeach	16	673	46	8,159	1	18	4	1,599
Woodbridge	32	1,041	37	2,651	—	—	—	—
Workington	3	76	87	20,476	1	17	—	—
Yarmouth	404	12,063	225	24,663	6	113	4	609
London	692	23,848	1,733	668,643	167	4,840	400	208,804
Total, England	7,211	224,363	12,606	3,252,201	725	16,434	892	369,386
SCOTLAND:								
Aberdeen	9	332	244	73,702	3	42	14	4,620
Alloa	19	616	33	11,363	2	20	3	211
Arbroath	8	318	85	13,197	—	—	—	—
Ayr	19	575	26	5,110	-	-	3	285
Banff	26	804	103	13,737	—	—	—	—
Borrowstoness	19	577	46	5,950	1	19	1	53
Campbeltown	34	1,162	5	283	-	-	2	279
Dumfries	57	1,799	66	12,736	—	—	—	—
Dundee	10	360	202	39,368	2	69	16	4,360
Glasgow	158	5,610	347	165,588	35	1,089	138	46,280
Grangemouth	10	312	27	5,260	5	96	6	1,856
Greenock	175	5,350	184	72,200	16	306	12	2,036
Inverness	150	3,662	91	7,639	2	26	—	—
Irvine	50	1,453	79	19,778	2	29	1	91
Kirkaldy	33	1,057	41	6,280	1	35	1	86
Kirkwall	26	718	24	2,245	1	26	—	—
Leith	61	1,872	68	20,567	14	269	34	10,595
Lerwick	58	1,639	16	1,083	—	—	—	—
Montrose	11	346	94	16,289	—	—	—	—
Perth	8	190	51	4,798	-	-	2	116
Peterhead	14	442	61	11,936	—	—	—	—
Port Glasgow	32	1,164	6	561	4	122	7	898
Stornoway	33	821	14	2,208	—	—	—	—
Stranraer	27	910	10	1,066	—	—	—	—
Wick	23	731	35	2,909	-	-	1	95
Wigtown	44	1,411	8	1,050	-	-	1	284
Total, Scotland	1,114	34,231	1,966	516,903	88	2,148	242	72,145
IRELAND:								
Ballina	2	36	1	70	1	37	—	—
Belfast	173	5,990	328	59,735	6	102	6	1,078
Coleraine	5	140	2	144	—	—	—	—
Cork	192	4,693	193	31,635	13	396	22	6,674
Drogheda	3	96	39	3,900	-	-	5	1,328
Dublin	319	9,947	179	26,299	14	388	41	11,063
Dundalk	3	119	25	1,967	1	24	4	1,521
Galway	11	297	3	502	1	36	—	—
Limerick	28	841	19	5,503	1	16	4	1,172
Londonderry	6	183	22	7,257	-	-	5	1,299
Newry	73	2,235	37	4,949	1	8	5	585
Ross	3	61	11	3,448	—	—	—	—
Skibbereen	70	1,716	3	219	—	—	—	—
Sligo	10	276	24	4,152	2	78	1	191
Strangford	30	971	28	2,321	—	—	—	—
Tralee	14	393	2	164	—	—	—	—
Waterford	55	1,352	102	11,704	-	-	39	17,979
Westport	4	90	—	—	—	—	—	—
Wexford	23	821	81	8,869	1	16	2	594
Total, Ireland	1,024	30,257	1,099	172,838	41	1,101	134	43,484
Isle of Man	300	7,422	52	4,154	-	-	3	802
Channel Islands	217	5,612	316	52,537	3	62	5	746

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

RETURN of the NUMBER and TONNAGE of VESSELS that entered and cleared Coastwise at each of the Ports of *Great Britain* and *Ireland, Isle of Man*, and *Channel Islands* (including their repeated Voyages), distinguishing British from Foreign Vessels, and Steam from Sailing Vessels, between the 31st day of December 1860 and the 31st day of December 1861.

SAILING VESSELS.

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
ENGLAND:	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Aberystwith	625	26,256	-	-	346	16,297	—	—
Arundel	395	34,897	-	-	127	7,252	—	—
Barnstaple	971	36,107	-	-	150	5,476	—	—
Beaumaris	1,637	78,439	1	171	334	15,634	5	1,211
Berwick	423	22,259	-	-	256	13,483	—	—
Bideford	755	30,870	-	-	117	5,670	—	—
Boston	649	29,072	-	-	225	10,767	—	—
Bridgwater	3,439	150,247	-	-	1,016	44,353	—	—
Bridport	122	8,787	-	-	21	1,220	—	—
Bristol	4,943	200,076	-	-	2,507	108,371	—	—
Caernarvon	1,256	57,923	-	-	208	8,174	—	—
Cardiff	2,032	131,438	6	903	6,957	486,792	1	113
Cardigan	634	16,795	-	-	41	1,344	—	—
Carlisle	58	4,021	-	-	328	20,177	—	—
Chepstow	558	18,178	-	-	368	14,608	—	—
Chester	1,030	51,350	1	103	1,284	62,143	1	220
Colchester	675	50,384	-	-	213	9,584	—	—
Cowes	614	38,939	-	-	244	5,611	—	—
Dartmouth	688	42,930	1	83	246	10,190	1	96
Deal	188	13,744	-	-	67	3,933	1	71
Dover	458	40,014	-	-	114	5,309	—	—
Exeter	594	59,813	-	-	173	9,283	—	—
Falmouth	636	37,059	-	-	210	9,426	—	—
Faversham	1,687	127,171	-	-	1,052	42,177	—	—
Fleetwood	488	38,674	-	-	187	17,708	—	—
Folkestone	310	35,716	-	-	2	72	—	—
Fowey	981	63,055	3	159	547	36,527	—	—
Gainsborough	105	5,027	-	-	298	13,645	—	—
Gloucester	994	40,584	-	-	3,560	140,977	—	—
Goole	1,218	63,934	-	-	1,256	60,554	1	172
Grimsby	151	8,267	-	-	282	39,520	—	—
Hartlepool	271	23,121	10	758	6,907	868,841	10	1,283
Hartlepool, West	—	—	—	—	—	—	—	—
Harwich	590	36,931	3	242	366	14,088	1	47
Hull	504	34,073	1	253	785	81,278	196	37,786
Ipswich	1,190	91,332	2	178	712	33,164	—	—
Lancaster	1,057	62,592	-	-	443	27,842	—	—
Liverpool	4,833	415,118	93	18,187	6,941	446,018	6	2,825
Llanelly	1,334	70,896	1	73	2,667	174,484	1	70
Lowestoft	795	69,604	-	-	155	9,372	1	56
Lyme	112	7,447	-	-	17	954	—	—
Lynn	1,276	114,059	-	-	329	20,640	1	39
Maldon	1,238	81,297	-	-	863	35,279	—	—
Maryport	339	25,252	-	-	2,881	241,879	—	—
Middlesboro	146	8,618	4	543	1,702	145,604	3	226
Milford	716	27,784	-	-	1,149	41,449	—	—
Newcastle	1,762	138,506	238	40,943	9,877	1,357,696	9	778
Newhaven	285	39,104	-	-	33	3,372	—	—
Newport	1,486	95,695	1	651	6,947	423,086	—	—
Padstow	824	35,677	-	-	315	13,160	—	—
Penzance	2,243	183,525	-	-	836	72,971	—	—
Plymouth	2,731	220,974	1	50	1,272	81,853	—	—
Poole	670	53,855	2	167	320	13,513	—	—
Portsmouth	1,328	135,963	-	-	922	26,465	—	—
Preston	476	25,651	-	-	537	28,359	—	—
Ramsgate	371	30,930	-	-	61	3,906	—	—
Rochester	2,776	279,035	-	-	939	40,048	—	—
Rye	529	41,775	-	-	59	3,675	—	—
Scarborough	376	20,750	-	-	34	1,842	—	—
Scilly	50	3,179	3	316	34	1,449	—	—
Shields	359	53,391	81	20,993	944	99,580	1	35
Shields, South	—	—	—	—	—	—	—	—
Shoreham	722	107,401	2	157	79	4,455	—	—
Southampton	1,684	186,307	-	-	791	37,218	—	—
Stockton	183	10,260	1	41	112	5,985	—	—

SAILING VESSELS—*continued.*

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
England—*cont^d.*								
Sunderland	1,174	95,541	11	1,993	10,907	1,345,406	1	132
Swansea	3,330	244,445	-	-	5,517	405,386	—	—
Teignmouth	577	52,397	1	88	142	8,511	1	92
Truro	771	58,551	1	74	558	45,480	—	—
Wells	521	26,979	-	-	262	13,751	1	65
Weymouth	232	18,772	-	-	52	2,606	—	—
Whitby	675	28,195	-	-	85	4,296	—	—
Whitehaven	764	30,458	-	-	3,562	254,005	4	686
Wisbeach	432	31,330	-	-	117	5,717	—	—
Woodbridge	476	27,185	-	-	263	12,663	—	—
Workington	73	3,138	-	-	1,186	99,930	—	—
Yarmouth	1,542	124,154	1	181	485	28,672	1	82
London	14,519	2,063,527	9	963	6,205	434,630	3	262
Total, England	87,656	7,096,800	478	88,270	102,106	8,246,855	250	46,347
SCOTLAND:								
Aberdeen	1,480	142,002	11	872	627	44,509	17	1,496
Alloa	46	2,519	2	99	188	12,104	2	635
Arbroath	486	31,745	-	-	250	16,207	—	—
Ayr	232	12,993	-	-	1,331	84,067	—	—
Banff	441	26,218	1	94	193	9,868	—	—
Borrowstoness	69	3,424	4	443	629	39,456	4	303
Campbeltown	326	12,387	-	-	133	5,095	—	—
Dumfries	635	20,872	-	-	204	7,435	1	63
Dundee	1,425	122,221	1	134	401	26,309	1	49
Glasgow	1,010	103,519	-	-	2,470	164,821	—	—
Grangemouth	189	13,710	-	-	127	10,138	—	—
Greenock	799	43,724	-	-	458	31,424	2	589
Inverness	1,785	96,914	5	345	1,450	84,172	11	976
Irvine	336	21,443	-	-	4,627	336,303	5	885
Kirkaldy	398	18,625	-	-	962	52,214	5	347
Kirkwall	206	12,073	-	-	167	9,829	—	—
Leith	814	47,189	1	59	605	35,557	5	752
Lerwick	84	5,943	1	119	65	4,533	—	—
Montrose	537	42,689	-	-	428	28,518	—	—
Perth	196	12,346	1	103	203	13,427	6	493
Peterhead	515	25,759	-	-	388	17,507	1	59
Port Glasgow	16	1,576	-	-	12	1,216	—	—
Stornoway	86	4,027	2	76	26	1,061	—	—
Stranraer	449	15,845	-	-	198	7,037	—	—
Wick	561	29,435	3	189	275	12,589	3	156
Wigtown	604	18,290	-	-	419	13,995	—	—
Total, Scotland	13,725	887,488	32	2,533	16,836	1,068,391	63	6,803
IRELAND:								
Ballina	108	7,295	-	-	117	8,002	—	—
Belfast	4,777	338,320	-	-	801	48,794	20	3,548
Coleraine	180	10,193	-	-	21	942	—	—
Cork	1,846	171,691	-	-	1,163	78,577	12	2,172
Drogheda	552	44,602	-	-	179	12,257	—	—
Dublin	5,873	515,037	7	1,500	1,963	109,511	25	3,776
Dundalk	680	49,997	-	-	122	8,773	2	386
Galway	124	12,579	-	-	104	8,089	—	—
Limerick	310	65,580	-	-	195	18,123	2	472
Londonderry	838	60,104	2	181	285	16,762	8	1,445
Newry	999	63,872	-	-	270	14,558	5	666
Ross	262	19,622	-	-	49	3,222	—	—
Skibbereen	252	13,284	-	-	139	8,951	1	106
Sligo	243	18,108	-	-	149	8,896	2	188
Strangford	513	26,449	-	-	211	9,149	—	—
Tralee	185	10,971	-	-	84	5,220	1	93
Waterford	1,276	101,421	1	87	611	37,134	1	261
Westport	88	6,100	-	-	123	7,640	1	150
Wexford	612	36,688	-	-	330	17,722	—	—
Total, Ireland	19,718	1,571,913	10	1,768	6,916	422,322	80	13,263
Isle of Man	1,430	82,907	-	-	683	46,893	—	—
Channel Islands	Nil.	—	—	—	—	—	—	—

STEAM VESSELS.

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
ENGLAND:								
Aberystwith	71	7,398	-	-	46	5,601	—	—
Arundel	—	—	—	—	—	—	—	—
Barnstaple	217	19,117	-	-	217	19,117	—	—
Beaumaris	747	247,576	-	-	593	199,267	—	—
Berwick	—	—	—	—	—	—	—	—
Bideford	103	7,439	-	-	103	7,439	—	—
Boston	—	—	—	—	—	—	—	—
Bridgwater	205	18,294	-	-	214	19,226	—	—
Bridport	—	—	—	—	—	—	—	—
Bristol	1,800	277,998	-	-	1,841	272,589	—	—
Caernarvon	64	14,641	-	-	1	255	—	—
Cardiff	524	75,047	-	-	975	188,450	—	—
Cardigan	—	—	—	—	—	—	—	—
Carlisle	291	41,290	-	-	305	41,797	—	—
Chepstow	—	—	—	—	—	—	—	—
Chester	191	11,079	2	372	187	11,079	—	—
Colchester	—	—	—	—	—	—	—	—
Cowes	—	—	—	—	—	—	—	—
Dartmouth	84	3,561	-	-	88	3,918	—	—
Deal	—	—	—	—	—	—	—	—
Dover	—	—	—	—	—	—	—	—
Exeter	4	500	-	-	4	500	—	—
Falmouth	100	42,382	—	—	—	—	—	—
Faversham	—	—	—	—	—	—	—	—
Fleetwood	398	123,255	-	-	401	123,431	—	—
Folkestone	—	—	—	—	—	—	—	—
Fowey	37	8,549	-	-	6	626	—	—
Gainsborough	—	—	—	—	—	—	—	—
Gloucester	-	-	-	-	2	126	—	—
Goole	98	17,197	-	-	143	22,532	—	—
Grimsby	-	-	-	-	1	290	—	—
Hartlepool	4	258	-	-	133	29,818	—	—
Hartlepool, West	—	—	—	—	—	—	—	—
Harwich	—	—	—	—	—	—	—	—
Hull	470	88,674	-	-	526	97,218	—	—
Ipswich	2	322	—	—	—	—	—	—
Lancaster	437	88,719	-	-	379	84,173	—	—
Liverpool	3,894	1,102,450	3	513	3,713	1,010,041	2	1,485
Llanelly	27	5,419	-	-	13	2,791	—	—
Lowestoft	56	14,500	-	-	2	590	—	—
Lyme	—	—	—	—	—	—	—	—
Lynn	51	5,661	-	-	51	5,661	—	—
Maldon	—	—	—	—	—	—	—	—
Maryport	1	59	-	-	3	177	—	—
Middlesborough	88	28,576	-	-	120	36,103	—	—
Milford	566	168,920	-	-	418	118,253	—	—
Newcastle	563	131,057	-	-	935	308,814	—	—
Newhaven	—	—	—	—	—	—	—	—
Newport	490	52,722	-	-	314	36,672	—	—
Padstow	59	5,056	-	-	58	4,976	—	—
Penzance	287	46,712	-	-	225	28,403	—	—
Plymouth	514	202,223	-	-	466	183,409	—	—
Poole	—	—	—	—	—	—	—	—
Portsmouth	1	201	-	-	92	39,848	—	—
Preston	15	360	-	-	6	195	2	198
Ramsgate	—	—	—	—	—	—	—	—
Rochester	5	2,120	—	—	—	—	—	—
Rye	—	—	—	—	—	—	—	—
Scarborough	1	17	—	—	—	—	—	—
Scilly	137	9,042	-	-	136	8,976	—	—
Shields	40	11,154	-	-	57	12,354	—	—
Shields, South	—	—	—	—	—	—	—	—
Shoreham	—	—	—	—	—	—	—	—
Southampton	121	49,835	—	—	—	—	—	—
Stockton	58	16,589	-	-	51	15,591	—	—
Sunderland	77	23,019	-	-	837	333,381	—	—
Swansea	436	65,151	-	-	448	63,229	—	—
Teignmouth	—	—	—	—	—	—	—	—
Truro	15	1,906	-	-	15	1,975	—	—

STEAM VESSELS—*continued.*

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
England—*cont*^{d}.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
eils	—	—	—	—	—	—	—	—
eymouth	1	91	—	—	—	—	—	—
hitby	63	1,485	-	-	1	20	—	—
hitehaven	321	62,471	-	-	409	92,208	—	—
isbeach	—	—	—	—	—	—	—	—
oodbridge	—	—	—	—	—	—	—	—
orkington	-	-	-	-	19	2,115	10	1,738
rmouth	203	39,396	-	-	200	38,939	—	—
ndon	2,878	1,106,586	-	-	1,875	626,473	—	—
Total, England	16,815	4,246,074	5	885	16,629	4,098,646	14	3,421
SCOTLAND:								
berdeen	553	169,729	-	-	537	170,363	—	—
lloa	—	—	—	—	—	—	—	—
rbroath	—	—	—	—	—	—	—	—
yr	203	15,969	-	-	205	16,172	—	—
anff	—	—	—	—	—	—	—	—
orrowstoness	1	53	-	-	1	53	—	—
ampbeltown	255	31,305	-	-	263	32,127	—	—
umfries	186	20,898	-	-	170	20,073	—	—
undee	189	51,607	-	-	187	50,993	—	—
lasgow	1,824	439,077	-	-	1,949	464,630	—	—
rangemouth	118	32,782	-	-	113	31,462	—	—
reenock	562	95,147	-	-	432	59,840	—	—
verness	518	82,935	-	-	524	83,683	—	—
vine	232	39,494	-	-	265	43,708	—	—
irkaldy	126	10,836	-	-	126	10,791	—	—
irkwall	218	21,955	-	-	225	23,615	—	—
eith	624	207,575	-	-	651	211,461	—	—
erwick	52	17,569	-	-	52	17,569	—	—
ontrose	—	—	—	—	—	—	—	—
erth	—	—	—	—	—	—	—	—
eterhead	26	3,962	-	-	25	3,813	—	—
ort Glasgow	-	-	-	-	2	165	—	—
tornoway	104	25,987	-	-	106	26,152	—	—
tranraer	288	29,818	-	-	270	28,368	—	—
Vick	423	70,343	-	-	426	72,473	—	—
Vigtown	47	13,306	-	-	59	16,630	—	—
Total, Scotland	6,549	1,380,347	-	-	6,588	1,384,141	—	—
IRELAND:								
Ballina	12	847	-	-	4	426	—	—
Belfast	1,705	490,389	-	-	1,702	490,393	—	—
Coleraine	223	48,603	-	-	79	15,787	—	—
Cork	465	198,196	-	-	457	196,503	—	—
Drogheda	269	76,048	-	-	338	92,845	—	—
Dublin	1,768	583,441	-	-	2,081	668,495	—	—
Dundalk	215	87,034	-	-	213	87,424	—	—
Galway	20	4,894	-	-	20	6,724	—	—
Limerick	116	33,173	-	-	117	33,536	—	—
Londonderry	467	122,975	-	-	445	114,421	1	197
Newry	348	60,765	-	-	331	59,537	—	—
Ross	323	27,132	-	-	323	27,132	—	—
Skibbereen	—	—	—	—	—	—	—	—
Sligo	153	35,951	-	-	160	35,872	—	—
Strangford	—	—	—	—	—	—	—	—
Tralee	75	23,758	—	—	—	—	—	—
Waterford	764	244,783	-	-	695	228,310	—	—
Westport	21	4,154	-	-	21	4,154	—	—
Wexford	161	37,014	-	-	161	36,653	—	—
Total, Ireland	7,105	2,079,157	-	-	7,147	2,098,212	1	197
Isle of Man	68	12,445	-	-	76	14,233	—	—
Channel Islands	Nil.	—	—	—	—	—	—	—

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of the NUMBER and TONNAGE of VESSELS that entered and cleared from and to the COLONIES, at each of the Ports of *Great Britain* and *Ireland*, *Isle of Man*, and *Channel Islands* (including their repeated Voyages), distinguishing Steam from Sailing Vessels, between the 31st day of December 1860 and the 31st day of December 1861; further distinguishing British from Foreign Vessels.

ENGLAND:	SAILING VESSELS.							
	INWARDS.				OUTWARDS.			
	BRITISH.		FOREIGN.		BRITISH.		FOREIGN.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Aberystwith	9	2,174	-	-	5	1,066	—	—
Arundel	4	620	-	-	1	170	—	—
Barnstaple	5	1,375	1	299	—	—	—	—
Beaumaris	14	6,009	-	-	10	3,456	—	—
Berwick	2	669	—	—	—	—	—	—
Bideford	9	3,362	1	333	5	1,905	—	—
Boston	—	—	—	—	—	—	—	—
Bridgwater	14	5,944	2	715	8	2,016	—	—
Bridport	-	-	-	-	4	313	—	—
Bristol	163	60,570	29	21,470	108	41,248	20	12,718
Caernarvon	21	6,035	1	440	27	5,107	—	—
Cardiff	64	18,241	16	3,672	258	76,036	203	90,711
Cardigan	2	511	-	-	1	260	—	—
Carlisle	6	1,954	2	705	3	1,004	—	—
Chepstow	—	—	—	—	—	—	—	—
Chester	3	832	-	-	2	494	—	—
Colchester	-	-	-	-	2	98	—	—
Cowes	22	1,085	-	-	21	1,057	—	—
Dartmouth	25	2,971	-	-	31	2,788	—	—
Deal	—	—	—	—	—	—	—	—
Dover	22	1,680	—	—	—	—	—	—
Exeter	13	1,953	5	1,459	13	1,109	1	405
Falmouth	9	1,159	1	598	49	4,916	1	598
Faversham	1	91	—	—	—	—	—	—
Fleetwood	29	16,672	5	1,872	21	12,383	2	1,047
Folkestone	—	—	—	—	—	—	—	—
Fowey	18	1,827	4	696	14	2,352	2	795
Gainsborough	—	—	—	—	—	—	—	—
Gloucester	71	31,623	31	15,415	42	14,710	6	3,039
Goole	-	-	-	-	3	719	—	—
Grimsby	6	1,953	35	13,900	5	2,077	—	—
Hartlepool	27	5,772	9	1,961	56	8,269	1	362
Hartlepool, West					4	291	—	—
Harwich	-	-	-	-	-	-	-	-
Hull	60	22,567	61	25,403	58	14,991	9	3,204
Ipswich	2	165	—	—	—	—	—	—
Lancaster	27	9,082	3	1,013	15	6,428	—	—
Liverpool	895	605,673	141	130,217	1,249	793,310	210	188,984
Llanelly	36	7,211	-	-	22	3,549	—	—
Lowestoft	-	-	1	381	—	—	—	—
Lyme	47	1,683	-	-	32	1,438	—	—
Lynn	—	—	—	—	—	—	—	—
Maldon	1	26	—	—	—	—	—	—
Maryport	11	3,001	1	412	25	6,399	—	—
Middlesborough	1	274	-	-	3	503	1	170
Milford	14	6,938	3	936	6	2,888	1	331
Newcastle	61	13,711	18	3,667	279	49,324	30	11,928
Newhaven	2	48	-	-	4	310	—	—
Newport	22	5,112	9	5,463	88	28,565	44	20,656
Padstow	5	1,405	-	-	6	2,106	—	—
Penzance	16	3,430	-	-	18	3,245	—	—
Plymouth	160	26,137	10	4,224	160	22,406	3	836
Poole	13	1,653	1	88	36	6,338	—	—
Portsmouth	52	9,154	8	4,702	14	3,791	—	—
Preston	1	190	—	—	—	—	—	—
Ramsgate	—	—	—	—	—	—	—	—
Rochester	15	8,443	18	7,643	6	4,602	1	274
Rye	2	270	-	-	1	32	—	—
Scarborough	1	314	-	-	1	314	—	—
Scilly	2	228	—	—	—	—	—	—
Shields	22	9,145	1	356	26	11,075	—	—
Shields, South					—	—	—	—
Shoreham	6	648	-	-	1	32	—	—
Southampton	62	4,290	2	756	50	5,200	—	—
Stockton	13	3,638	1	351	—	—	—	—
Sunderland	91	22,817	14	4,583	217	66,543	34	28,470
Swansea	87	11,699	11	1,986	131	21,006	66	16,713
Teignmouth	43	4,184	-	-	27	2,940	—	—
Truro	12	5,695	2	1,003	3	1,309	5	1,698
Wells	—	—	—	—	—	—	—	—
Weymouth	56	2,603	-	-	18	989	—	—
Whitby	1	277	—	—	—	—	—	—
Whitehaven	15	3,849	-	-	10	2,611	—	—
Wisbeach	1	210	-	-	1	285	—	—
Woodbridge	—	—	—	—	—	—	—	—
Workington	10	2,011	-	-	9	2,079	—	—
Yarmouth	3	904	—	—	—	—	—	—
London	2,132	797,048	275	177,294	1,320	662,283	152	96,476
TOTAL, ENGLAND	4,559	1,770,315	722	434,013	4,529	1,915,735	792	479,40

SAILING VESSELS—*continued.*

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
SCOTLAND:								
Aberdeen	15	4,264	-	-	10	3,432	—	—
Alloa	-	-	-	-	4	1,850	—	—
Arbroath	7	500	—	—	—	—	—	—
Ayr	5	1,467	-	-	3	817	—	—
Banff	1	314	-	-	1	314	—	—
Borrowstoness	1	44	—	—	—	—	—	—
Campbeltown	—	—	—	—	—	—	—	—
Dumfries	15	3,358	-	-	5	1,109	—	—
Dundee	23	5,949	5	2,320	14	5,877	1	403
Glasgow	106	44,397	13	7,076	240	111,113	22	17,127
Grangemouth	9	4,418	3	1,259	7	3,756	—	—
Greenock	202	94,829	12	5,321	170	83,460	11	7,973
Inverness	2	556	1	233	—	—	—	—
Irvine	20	8,476	1	347	66	24,328	14	4,453
Kirkaldy	4	159	-	-	1	390	—	—
Kirkwall	-	-	-	-	-	-	1	159
Leith	28	10,850	6	2,322	31	15,705	4	1,494
Lerwick	1	384	—	—	—	—	—	—
Montrose	14	2,648	-	-	2	1,138	—	—
Perth	2	674	-	-	1	300	—	—
Peterhead	1	311	-	-	1	311	—	—
Port Glasgow	33	22,967	1	425	25	14,380	1	1,279
Stornoway	5	501	—	—	—	—	—	—
Stranraer	1	404	2	910	-	-	1	562
Wick	2	351	-	-	1	167	—	—
Wigtown	1	314	-	-	2	503	—	—
Total, Scotland	498	208,155	44	20,213	584	268,950	55	33,450
IRELAND:								
Ballina	2	568	—	—	—	—	—	—
Belfast	35	15,903	33	10,530	33	13,454	13	6,116
Coleraine	2	646	1	343	2	646	1	343
Cork	81	24,071	13	4,401	82	23,242	9	3,092
Drogheda	5	963	-	-	4	971	—	—
Dublin	85	35,362	26	14,156	64	28,043	20	8,571
Dundalk	8	1,987	5	1,235	2	504	—	—
Galway	10	3,207	2	580	16	5,356	1	447
Limerick	25	10,693	5	1,720	22	10,572	3	1,087
Londonderry	16	7,997	4	1,399	12	5,428	—	—
Newry	12	7,166	7	2,647	7	4,576	3	997
Ross	5	1,880	-	-	12	3,691	—	—
Skibbereen	2	376	2	603	2	540	1	361
Sligo	8	2,136	4	707	8	2,105	2	757
Strangford	4	1,160	-	-	4	1,160	—	—
Tralee	6	2,154	4	1,099	4	1,722	3	906
Waterford	31	6,409	1	402	33	5,880	5	2,161
Westport	1	968	1	222	1	305	1	244
Wexford	11	2,382	1	343	4	1,025	—	—
Total, Ireland	349	126,028	109	40,387	312	109,220	62	25,082
Isle of Man	4	937	1	77	2	513	—	—
Channel Islands	27	3,919	-	-	61	7,961	—	—

STEAM VESSELS.

Cardiff	-	-	-	-	4	3,265	—	—
Hartlepool	-	-	-	-	1	559	1	266
Liverpool	36	56,960	-	-	66	85,620	—	—
Lowestoft	1	295	-	-	1	295	—	—
Newcastle	-	-	-	-	1	359	—	—
Newhaven	83	6,457	-	-	96	7,120	—	—
Plymouth	5	750	-	-	25	3,750	—	—
Shields	-	-	-	-	2	101	—	—
Southampton	303	59,721	-	-	307	62,246	—	—
Swansea	-	-	-	-	2	834	—	—
Teignmouth	10	1,426	—	—	—	—	—	—
Weymouth	134	19,565	-	-	134	19,560	—	—
London	81	43,057	-	-	58	26,175	—	—
Glasgow	8	8,347	-	-	21	12,288	1	662
Greenock	-	-	-	-	1	352	—	—
Leith	-	-	-	-	1	206	—	—
Total	661	196,578	-	-	720	222,730	2	928
Isle of Man	Nil.	—	—	—	—	—	—	—
Channel Islands	Nil.	—	—	—	—	—	—	—

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

RETURN of the NUMBER and TONNAGE of VESSELS that entered and cleared from and to FOREIGN PORTS, at each of the Ports of *Great Britain* and *Ireland*, *Isle of Man*, and *Channel Islands* (including their repeated Voyages), distinguishing Steam from Sailing Vessels, and British from Foreign Vessels, between the 31st day of December 1860 and the 31st day of December 1861.

SAILING VESSELS.

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
ENGLAND:	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Aberystwith	4	320	2	205	—	—	—	—
Arundel	9	1,063	21	2,300	5	475	13	1,689
Barnstaple	—	—	—	—	—	—	—	—
Beaumaris	11	1,816	12	3,450	17	2,248	2	1,584
Berwick	15	2,119	45	6,535	8	597	15	2,733
Bideford	3	283	1	154	—	—	—	—
Boston	41	4,152	20	2,445	76	4,388	5	610
Bridgwater	17	2,488	17	3,470	5	384	4	1,191
Bridport	9	1,282	8	969	-	-	6	754
Bristol	343	67,421	318	112,175	118	18,426	99	46,388
Caernarvon	26	3,286	2	591	164	15,489	3	672
Cardiff	274	44,177	1,287	217,123	877	204,875	2,150	459,402
Cardigan	—	—	—	—	—	—	—	—
Carlisle	4	831	2	557	3	780	3	880
Chepstow	1	87	—	—	—	—	—	—
Chester	6	514	7	1,217	3	247	7	1,100
Colchester	26	2,160	19	1,842	21	978	15	1,417
Cowes	47	2,133	6	810	44	1,810	7	601
Dartmouth	35	2,352	6	1,029	55	4,964	2	863
Deal	5	503	10	841	5	373	7	618
Dover	42	4,073	23	3,510	23	555	3	615
Exeter	45	4,818	49	7,458	7	715	20	4,395
Falmouth	86	5,283	35	4,465	83	5,250	17	2,043
Faversham	50	2,083	3	319	56	2,123	3	305
Fleetwood	13	7,841	12	5,999	6	2,575	13	5,473
Folkestone	1	72	2	283	—	—	—	—
Fowey	119	9,437	88	8,153	186	14,060	141	11,986
Gainsborough	16	1,138	13	1,275	8	568	7	523
Gloucester	143	31,983	219	52,377	33	5,369	63	16,497
Goole	177	12,915	46	5,201	19	1,365	46	4,824
Grimsby	137	23,407	295	61,360	85	11,717	283	60,783
Hartlepool	818	142,544	1,343	148,479	887	169,472	1,960	222,340
Harwich	206	13,987	49	4,131	14	1,006	62	4,465
Hull	528	87,845	1,060	159,026	194	29,097	804	124,223
Ipswich	94	10,096	84	10,732	134	10,097	49	6,381
Lancaster	2	277	13	2,345	16	2,801	5	1,493
Liverpool	1,679	613,549	1,652	1,063,042	1,538	449,812	1,709	1,022,558
Llanelly	246	29,081	452	32,583	274	33,519	465	33,729
Lowestoft	41	4,690	62	7,424	19	1,217	26	3,889
Lyme	1	68	1	74	—	—	—	—
Lynn	82	9,033	74	7,530	12	879	10	1,496
Maldon	65	2,991	12	1,083	48	1,877	5	484
Maryport	5	960	5	1,028	4	546	5	1,179
Middlesborough	508	62,955	478	39,568	526	74,054	717	66,005
Milford	15	3,240	11	3,159	-	-	7	1,915
Newcastle	1,944	324,274	2,715	397,464	3,427	723,986	4,299	666,333
Newhaven	29	2,153	14	1,833	10	331	—	—
Newport	145	18,370	241	50,464	400	65,357	372	95,777
Padstow	6	897	1	172	4	251	2	240
Penzance	22	2,743	81	12,875	25	2,328	53	9,870
Plymouth	295	28,139	144	26,161	164	10,484	61	15,403
Poole	99	9,607	44	7,223	30	2,924	13	1,797
Portsmouth	65	7,498	101	16,204	7	933	74	12,408
Preston	8	765	5	511	3	463	2	223
Ramsgate	36	2,293	5	486	4	153	1	128
Rochester	68	7,700	45	7,807	82	4,782	56	12,798
Rye	13	745	14	1,598	5	191	5	704

SAILING VESSELS—*continued.*

	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
England—*cont*^{d}.								
arborough	21	2,913	8	675	9	636	3	317
illy	5	670	2	298	1	192	1	90
ields	1,186	244,461	505	52,015	760	120,855	437	39,693
oreham	41	4,650	271	14,489	32	2,100	262	13,623
uthampton	70	7,883	231	20,947	29	2,824	199	16,494
ockton	25	3,137	119	12,119	6	598	32	2,848
nderland	1,521	275,901	1,299	189,595	1,819	391,558	1,599	251,640
vansea	387	73,218	1,421	136,834	707	120,928	1,705	198,251
ignmouth	28	1,772	17	2,173	17	1,066	4	736
uro	11	1,106	52	15,197	6	780	38	11,611
ells	36	2,776	18	1,132	9	648	—	—
eymouth	92	5,988	24	2,285	5	583	17	1,725
hitby	68	7,601	5	401	1	28	1	30
hitehaven	1	129	8	1,404	7	940	4	892
isbeach	64	12,317	48	7,651	66	3,857	24	3,973
oodbridge	7	722	4	331	5	295	4	331
orkington	-	-	1	80	6	672	1	80
armouth	158	15,474	85	11,957	89	7,683	49	5,784
ondon	2,587	509,211	3,600	864,296	1,764	238,358	3,147	764,141
Total, England	15,033	2,796,466	18,992	3,842,994	15,072	2,781,492	21,223	4,246,043
SCOTLAND:								
berdeen	108	13,916	160	15,645	59	9,699	25	3,327
lloa	33	6,589	179	19,243	85	10,128	379	36,846
rbroath	23	3,272	24	2,656	12	2,210	4	294
yr	10	1,664	4	699	16	1,871	4	630
anff	22	1,736	71	4,899	40	3,181	40	2,573
orrowstoness	95	11,211	195	19,796	314	42,220	706	72,684
ampbeltown	—	—	—	—	—	—	—	—
umfries	2	222	2	230	—	—	—	—
undee	186	34,988	246	35,356	119	23,496	191	29,345
lasgow	299	63,962	207	74,784	323	64,736	228	72,495
rangemouth	51	6,342	280	39,601	123	15,564	336	49,234
reenock	92	24,367	87	26,432	39	17,304	33	11,643
iverness	16	2,177	28	4,299	44	3,887	15	1,550
rvine	9	1,732	70	7,525	205	39,991	202	46,851
irkaldy	66	10,232	197	17,419	87	11,064	507	46,243
irkwall	3	525	23	2,481	1	71	18	1,412
eith	311	51,581	906	105,486	52	9,622	194	30,198
erwick	4	395	15	795	8	585	17	1,017
ontrose	46	6,949	96	15,870	44	7,947	94	15,590
erth	14	1,460	49	4,379	2	188	2	281
eterhead	58	9,765	45	3,484	105	13,175	41	2,999
ort Glasgow	17	7,478	8	3,887	4	1,422	1	447
tornoway	8	803	4	491	60	3,248	4	230
tranraer	-	-	2	544	-	-	1	348
ick	14	824	92	5,404	128	9,606	98	6,144
igtown	—	—	—	—	—	—	—	—
Total, Scotland	1,487	262,190	2,990	411,405	1,870	291,215	3,140	432,381
IRELAND:								
allina	8	1,248	2	368	—	—	—	—
elfast	69	16,561	117	30,696	19	5,468	52	13,939
oleraine	3	665	2	346	—	—	—	—
ork	121	32,465	276	77,778	32	7,893	59	17,449
rogheda	8	1,364	9	1,773	1	252	5	1,229
ublin	221	40,631	214	58,787	62	14,080	146	46,708
undalk	13	2,564	10	2,056	-	-	5	1,083
alway	24	7,517	26	8,606	6	1,777	12	4,513
imerick	45	12,816	94	27,034	14	3,892	14	4,476
ondonderry	60	16,701	75	21,897	16	6,969	14	4,943
ewry	15	4,134	26	5,946	4	1,699	10	3,076
oss	23	5,507	14	4,098	2	611	1	357
kibbereen	3	706	9	1,926	-	-	2	515
ligo	18	5,109	29	7,374	4	1,286	11	3,540
trangford	-	-	1	198	-	-	1	198

(*continued*)

	SAILING VESSELS—*continued.*							
	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
Ireland—*cont^d.*	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Tralee	11	2,655	26	6,240	2	500	5	1,441
Waterford	81	25,415	90	25,786	9	3,394	26	8,156
Westport	5	1,078	8	1,783	-	-	2	449
Wexford	24	4,389	4	963	1	176	2	562
Total, Ireland	752	181,525	1,032	283,655	172	47,997	367	112,634
Isle of Man	9	1,198	29	3,200	3	387	25	2,830
Channel Islands	789	45,198	221	16,935	737	28,453	178	12,337
	STEAM VESSELS.							
Bristol	13	3,341	9	1,323	11	2,827	9	1,323
Cardiff	79	34,035	7	1,297	96	42,523	20	4,668
Cowes	-	-	-	-	-	-	2	2,818
Dover	398	37,155	443	49,758	175	15,758	—	—
Falmouth	1	220	2	158	1	220	2	158
Folkestone	742	112,495	-	-	736	111,551	—	—
Fowey	1	91	-	-	1	91	—	—
Gainsborough	-	-	-	-	-	-	1	60
Gloucester	3	396	—	—	—	—	—	—
Goole	216	39,111	-	-	217	39,182	—	—
Grimsby	94	33,864	34	16,722	103	40,175	37	18,287
Hartlepool	296	99,190	9	2,236	301	100,946	6	1,288
Hull	887	294,511	346	93,094	909	302,300	354	96,209
Liverpool	568	446,048	70	27,677	532	435,384	67	27,275
Llanelly	1	99	—	—	—	—	—	—
Lowestoft	8	1,861	—	—	—	—	—	—
Middlesborough	32	7,127	-	-	36	8,715	1	216
Milford	-	-	-	-	1	13,343	—	—
Newcastle	117	37,527	-	-	126	41,784	6	874
Newhaven	437	61,392	-	-	420	60,337	—	—
Newport	2	1,315	-	-	14	7,511	—	—
Plymouth	9	2,313	1	147	—	—	—	—
Portsmouth	-	-	-	-	1	201	—	—
Shields	5	2,341	-	-	4	1,366	—	—
Southampton	362	182,085	47	68,005	350	178,492	44	65,023
Stockton	4	1,487	—	—	—	—	—	—
Sunderland	8	3,389	45	17,397	15	6,124	48	17,528
Swansea	7	2,402	-	-	12	4,001	—	—
Yarmouth	-	-	-	-	2	290	—	—
London	1,875	633,269	417	138,967	1,597	504,441	411	136,438
Alloa	1	190	-	-	15	2,850	—	—
Dundee	10	3,712	-	-	10	3,854	—	—
Glasgow	43	15,256	-	-	108	25,067	—	—
Grangemouth	65	19,398	34	8,477	68	20,082	38	9,371
Greenock	7	1,189	-	-	2	905	9	4,391
Leith	225	79,243	2	432	224	81,750	3	701
Lerwick	3	1,086	-	-	2	747	—	—
Port Glasgow	-	-	-	-	2	500	—	—
Belfast	1	179	—	—	—	—	—	—
Cork	1	177	—	—	—	—	—	—
Dublin	32	6,575	-	-	1	255	—	—
Galway	7	10,638	-	-	6	8,586	—	—
Londonderry	-	-	1	197	—	—	—	—
Waterford	8	4,571	—	—	—	—	—	—
Total	6,568	2,179,278	1,467	425,887	6,098	2,062,158	1,058	386,628
Isle of Man	Nil.	—	—	—	—	—	—	—
Channel Islands	255	19,162	87	3,992	254	18,771	88	4,048

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

AGGREGATE RETURN of the NUMBER and TONNAGE of VESSELS entered and cleared at each of the PORTS of *Great Britain* and in the Year 1861; distinguishing B

	Inwards.								British.			
	British.				Foreign.							
	Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vess	
ENGLAND:	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	T
erystwith	638	28,750	71	7,398	2	205	–	–	351	17,363	46	
undel	408	36,580	–	–	21	2,300	–	–	133	7,897	–	
rnstaple	976	37,482	217	19,117	1	299	–	–	150	5,476	217	1
aumaris	1,662	86,264	747	247,576	13	3,621	–	–	361	21,338	593	19
rwick	440	25,047	–	–	45	6,535	–	–	264	14,080	–	
deford	767	34,515	103	7,439	2	487	–	–	122	7,575	103	
ston	690	33,224	–	–	20	2,445	–	–	301	15,155	–	
idgwater	3,470	158,679	205	18,294	19	4,185	–	–	1,029	46,753	214	1
idport	131	10,069	–	–	8	969	–	–	25	1,533	–	
istol	5,449	328,067	1,813	281,339	347	133,645	9	1,323	2,733	168,045	1,852	27
ernarvon	1,303	67,244	64	14,641	3	1,031	–	–	399	28,770	1	
rdiff	2,370	193,856	603	109,082	1,309	221,698	7	1,297	8,092	767,703	1,075	23
rdigan	636	17,306	–	–	–	–	–	–	42	1,604	–	
rlisle	68	6,806	291	41,290	4	1,262	–	–	334	21,961	305	4
epstow	559	18,265	–	–	–	–	–	–	368	14,608	–	
ester	1,039	52,696	191	11,079	8	1,320	2	372	1,289	62,884	187	1
lchester	701	52,544	–	–	19	1,842	–	–	236	10,660	–	
wes	683	42,157	–	–	6	810	–	–	309	8,478	–	
rtmouth	748	48,253	84	3,561	7	1,112	–	–	332	17,942	88	
al	193	14,247	–	–	10	841	–	–	72	4,306	–	
ver	522	45,767	398	37,155	23	3,510	443	49,758	137	5,864	175	1
eter	652	66,584	4	500	54	8,917	–	–	193	11,107	4	
lmouth	731	43,501	101	42,602	36	5,063	2	158	342	19,592	1	
versham	1,738	129,345	–	–	3	319	–	–	1,108	44,300	–	
etwood	530	63,187	398	123,255	17	7,871	–	–	214	32,666	401	12
lkestone	311	35,788	742	112,495	2	283	–	–	2	72	736	11
wey	1,118	74,319	38	8,640	95	9,008	–	–	747	52,939	7	
insborough	121	6,165	–	–	13	1,275	–	–	306	14,213	–	
oucester	1,208	104,190	3	396	250	67,792	–	–	3,635	161,056	2	
ole	1,395	76,849	314	56,308	46	5,201	–	–	1,278	62,638	360	6
imsby	294	33,627	94	33,864	330	75,260	34	16,722	372	53,314	104	4
rtlepool rtlepool, West	1,116	171,437	300	99,448	1,362	151,198	9	2,236	7,850	1,046,582	133	2
rwich	796	50,918	–	–	52	4,373	–	–	384	15,385	302	10
ll	1,092	144,485	1,357	383,185	1,122	184,682	346	93,094	1,037	125,366	1,435	39
wich	1,286	101,593	2	322	86	10,910	–	–	846	43,261	–	
ncaster	1,086	71,951	437	88,719	16	3,358	–	–	474	37,071	379	8
erpool	7,407	1,634,340	4,498	1,605,458	1,886	1,211,446	73	28,190	9,728	1,694,140	4,311	1,53
nelly	1,616	107,188	28	5,518	453	32,656	–	–	2,963	211,552	13	
westoft	836	74,294	65	16,656	63	7,805	–	–	174	10,589	3	
me	160	9,198	–	–	1	74	–	–	49	2,392	–	
nn	1,358	123,092	51	5,661	74	7,530	–	–	341	21,519	51	
ldon	1,304	84,314	–	–	12	1,083	–	–	911	37,156	–	
aryport	355	29,213	1	59	6	1,440	–	–	2,910	248,824	3	
ddlesborough	655	71,847	120	35,703	482	40,111	–	–	2,231	220,161	156	4
lford	745	37,962	566	168,920	14	4,095	–	–	1,155	44,337	419	13
wcastle	3,767	476,491	680	168,584	2,971	442,074	–	–	13,583	2,131,006	1,062	35
whaven	316	41,305	520	67,849	14	1,833	–	–	47	4,013	516	6
wport	1,653	119,177	492	54,037	251	56,578	–	–	7,435	517,008	328	4
dstow	835	37,979	59	5,056	1	172	–	–	325	15,517	58	
nzance	2,281	189,698	287	46,712	81	12,875	–	–	879	78,544	225	2
ymouth	3,186	275,250	528	205,286	155	30,435	1	147	1,596	114,743	491	18
ole	782	65,115	–	–	47	7,478	–	–	386	22,775	–	
rtsmouth	1,445	152,615	1	201	109	20,906	–	–	943	31,189	93	4
eston	485	26,606	15	360	5	511	–	–	540	28,822	6	
msgate	407	33,223	–	–	5	486	–	–	65	4,059	–	
chester	2,859	295,178	5	2,120	63	15,450	–	–	1,027	49,432	–	
e	544	42,790	–	–	14	1,598	–	–	65	3,898	–	
arborough	398	23,977	1	17	8	675	–	–	44	2,792	–	
lly	57	4,077	137	9,042	5	614	–	–	35	1,641	136	8
ields ields, South	1,567	306,997	45	13,495	587	73,364	–	–	1,730	231,510	57	12
oreham	769	112,699	–	–	273	14,646	–	–	112	6,587	6	1
uthampton	1,816	198,480	786	291,641	233	21,703	47	68,005	870	45,242	657	24
ckton	221	17,035	62	18,076	121	12,511	–	–	118	6,583	51	1
nderland	2,786	394,259	85	26,408	1,324	196,171	45	17,397	12,943	1,803,507	852	33
ansea	3,804	329,362	443	67,553	1,432	138,820	–	–	6,355	547,320	462	6
gnmouth	648	58,353	10	1,426	18	2,261	–	–	186	12,517	–	
ro	794	65,352	15	1,906	55	16,274	–	–	567	47,569	15	

Ireland, Isle of Man, and *Channel Islands* (including their repeated Voyages), in the Coasting, Colonial, and Foreign Trades, British from Foreign Vessels.

Outwards.					Total Inwards.				Total Outwards.			
	Foreign.				British.		Foreign.		British.		Foreign.	
els.	Sailing Vessels.		Steam Vessels.		Sailing and Steam Vessels.		Sailing and Steam Vessels.		Sailing and Steam Vessels.		Sailing and Steam Vessels.	
ns.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
5,601	–	- -	–	–	709	36,148	2	205	397	22,964	—	—
-	13	1,689	–	–	408	36,580	21	2,300	133	7,897	13	1,689
9,117	–	- -	–	–	1,193	56,599	1	299	367	24,593	—	—
9,267	7	2,795	–	–	2,409	333,840	13	3,621	954	220,605	7	2,795
-	15	2,733	–	–	440	25,047	45	6,535	264	14,080	15	2,733
7,439	–	- -	–	–	870	41,954	2	487	225	15,014	—	—
-	5	610	–	–	690	33,224	20	2,445	301	15,155	5	610
9,226	4	1,191	–	–	3,675	176,973	19	4,185	1,243	65,979	4	1,191
-	6	754	–	–	131	10,069	8	969	25	1,533	6	754
5,416	119	59,106	9	1,323	7,262	609,406	356	134,968	4,585	443,461	128	60,429
255	3	672	–	–	1,367	81,885	3	1,031	400	29,025	3	672
4,238	2,354	550,226	20	4,668	2,973	302,938	1,316	222,995	9,167	1,001,941	2,374	554,894
-	–	- -	–	–	636	17,306	–	- -	42	1,604	—	—
1,797	3	880	–	–	359	48,096	4	1,262	639	63,758	3	880
-	–	- -	–	–	559	18,265	–	- -	368	14,608	—	—
1,079	8	1,320	–	–	1,230	63,775	10	1,692	1,476	73,963	8	1,320
-	15	1,417	–	–	701	52,544	19	1,842	236	10,660	15	1,417
-	7	601	2	2,818	683	42,157	6	810	309	8,478	9	3,419
3,918	3	959	–	–	832	51,814	7	1,112	420	21,860	3	959
-	8	689	–	–	193	14,247	10	841	72	4,306	8	689
5,758	3	615	–	–	920	82,922	466	53,268	312	21,622	3	615
500	21	4,800	–	–	656	67,084	54	8,917	197	11,607	21	4,800
220	18	2,641	2	158	832	86,103	38	5,221	343	19,812	20	2,799
-	3	305	–	–	1,738	129,345	3	319	1,108	44,300	3	305
3,431	15	6,520	–	–	928	186,442	17	7,871	615	156,097	15	6,520
4,551	–	- -	–	–	1,053	148,283	2	283	738	111,623	—	—
717	143	12,781	–	–	1,156	82,959	95	9,008	754	53,656	143	12,781
-	7	523	1	60	121	6,165	13	1,275	306	14,213	8	583
126	69	19,536	–	–	1,211	104,586	250	67,792	3,637	161,182	69	19,536
1,714	47	4,996	–	–	1,709	133,157	46	5,201	1,638	124,352	47	4,996
9,465	283	60,783	37	18,287	388	67,491	364	91,982	476	93,779	320	79,070
9,818	1,971	223,985	7	1,554	1,416	270,885	1,371	153,434	7,983	1,076,400	1,978	225,539
1,505	63	4,512	–	–	796	50,918	52	4,373	686	116,890	63	4,512
9,518	1,009	165,213	354	96,209	2,449	527,670	1,468	277,776	2,472	524,884	1,363	261,422
-	49	6,381	–	–	1,288	101,915	86	10,910	846	43,261	49	6,381
1,173	5	1,493	–	–	1,523	160,670	16	3,358	853	121,244	5	1,493
1,045	1,925	1,214,367	69	28,760	11,905	3,239,798	1,959	1,239,636	14,039	3,225,185	1,994	1,243,127
5,791	466	33,799	–	–	1,644	112,706	453	32,656	2,976	214,343	466	33,799
885	27	3,945	–	–	901	90,950	63	7,805	177	11,474	27	3,945
-	–	- -	–	–	160	9,198	1	74	49	2,392	—	—
1,661	11	1,535	–	–	1,409	128,753	74	7,530	392	27,180	11	1,535
-	5	484	–	–	1,304	84,314	12	1,083	911	37,156	5	484
177	5	1,179	–	–	356	29,272	6	1,440	2,913	249,001	5	1,179
1,818	721	66,401	1	216	775	107,550	482	40,111	2,387	264,979	722	66,617
1,596	8	2,246	–	–	1,311	206,882	14	4,095	1,574	175,933	8	2,246
1,957	4,338	679,039	6	874	4,447	645,075	2,971	442,074	14,645	2,481,963	4,344	679,913
1,457	–	- -	–	–	836	109,154	14	1,833	563	71,470	—	—
1,183	416	116,433	–	–	2,145	173,214	251	56,578	7,763	561,191	416	116,433
1,976	2	240	–	–	894	43,035	1	172	383	20,493	2	240
1,403	53	9,870	–	–	2,568	236,410	81	12,875	1,104	106,947	53	9,870
1,159	64	16,239	–	–	3,714	480,536	156	30,582	2,087	301,902	64	16,239
-	13	1,797	–	–	782	65,115	47	7,478	386	22,775	13	1,797
1,049	74	12,408	–	–	1,446	152,816	109	20,906	1,036	71,238	74	12,408
1,195	2	223	2	198	500	26,966	5	511	546	29,017	4	421
-	1	128	–	–	407	33,223	5	486	65	4,059	1	128
-	57	13,072	–	–	2,864	297,298	63	15,450	1,027	49,432	57	13,072
-	5	704	–	–	544	42,790	14	1,598	65	3,898	5	704
-	3	317	–	–	399	23,994	8	675	44	2,792	3	317
1,976	1	90	–	–	194	13,119	5	614	171	10,617	1	90
1,354	438	39,728	–	–	1,612	320,492	587	73,364	1,787	243,864	438	39,728
1,467	262	13,623	–	–	769	112,699	273	14,646	118	8,054	262	13,623
1,738	199	16,494	44	65,023	2,602	490,121	280	89,708	1,527	285,980	243	81,517
1,591	32	2,848	–	–	283	35,111	121	12,511	169	22,174	32	2,848
1,505	1,634	280,242	48	17,528	2,871	420,667	1,369	213,568	13,795	2,143,012	1,682	297,770
1,064	1,771	214,964	–	–	4,247	396,915	1,432	138,820	6,817	615,384	1,771	214,964
-	5	828	–	–	658	59,779	18	2,261	186	12,517	5	828
1,975	43	13,309	–	–	809	67,258	55	16,274	582	49,544	43	13,309

(*continued*)

	Inwards.								British.		
	British.				Foreign.						
	Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Stea
England—*cont*[d].	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels
Wells	557	29,755	–	–	18	1,132	–	–	271	14,399	–
Weymouth	380	27,363	135	19,656	24	2,285	–	–	75	4,178	13
Whitby	744	36,073	63	1,485	5	401	–	–	86	4,324	
Whitehaven	780	34,436	321	62,471	8	1,404	–	–	3,579	257,556	40
Wisbeach	497	43,857	–	–	48	7,651	–	–	184	9,859	–
Woodbridge	483	27,907	–	–	4	331	–	–	268	12,958	–
Workington	83	5,149	–	–	1	80	–	–	1,201	102,681	1
Yarmouth	1,703	140,532	203	39,396	86	12,138	–	–	574	36,355	20
London	19,238	3,369,786	4,834	1,782,912	3,884	1,042,553	417	138,967	9,289	1,335,271	3,53
Total, England	107,248	11,664,081	23,633	6,471,369	20,192	4,365,277	1,435	417,666	121,707	12,944,082	22,98
SCOTLAND:											
Aberdeen	1,603	160,182	553	169,729	171	16,517	–	–	696	57,640	53
Alloa	79	9,108	1	190	181	19,342	–	–	277	24,082	1
Arbroath	516	35,517	–	–	24	2,656	–	–	262	17,417	–
Ayr	247	16,144	203	15,969	4	699	–	–	1,350	86,755	20
Banff	464	28,268	–	–	72	4,993	–	–	234	13,363	–
Borrowstoness	165	14,679	1	53	199	20,239	–	–	943	81,676	
Campbeltown	326	12,387	255	31,305	–	–	–	–	133	5,095	26
Dumfries	652	24,452	186	20,898	2	230	–	–	209	8,544	17
Dundee	1,634	163,158	199	55,319	252	37,810	–	–	534	55,682	19
Glasgow	1,415	211,878	1,875	462,680	220	81,860	–	–	3,033	340,670	2,07
Grangemouth	249	24,470	183	52,180	283	40,860	34	8,477	257	29,458	18
Greenock	1,093	162,920	569	96,336	99	31,753	–	–	667	132,188	42
Inverness	1,803	99,647	518	82,935	34	4,877	–	–	1,494	88,059	54
Irvine	365	31,651	232	39,494	71	7,872	–	–	4,898	400,622	26
Kirkaldy	468	29,016	126	10,836	197	17,419	–	–	1,050	63,668	1
Kirkwall	209	12,598	218	21,955	23	2,481	–	–	168	9,900	2
Leith	1,153	109,620	849	286,818	913	107,867	2	432	688	60,884	87
Lerwick	89	6,722	55	18,655	16	914	–	–	73	5,118	
Montrose	597	52,286	–	–	96	15,870	–	–	474	37,603	–
Perth	212	14,480	–	–	50	4,482	–	–	206	13,915	–
Peterhead	574	35,835	26	3,962	45	3,484	–	–	494	30,993	
Port Glasgow	66	32,021	–	–	9	4,312	–	–	41	17,018	
Stornoway	99	5,331	104	25,987	6	567	–	–	86	4,309	1
Stranraer	450	16,249	288	29,818	4	1,454	–	–	198	7,037	2
Wick	577	30,610	423	70,343	95	5,593	–	–	404	22,362	4
Wigtown	605	18,604	47	13,306	–	–	–	–	421	14,498	
Total, Scotland	15,710	1,357,833	6,911	1,508,768	3,066	434,151	36	8,909	19,290	1,628,556	7,0
IRELAND:											
Ballina	118	9,111	12	847	2	368	–	–	117	8,002	
Belfast	4,881	370,784	1,706	490,568	150	41,226	–	–	853	67,716	1,7
Coleraine	185	11,504	223	48,603	3	689	–	–	23	1,588	
Cork	2,048	228,227	466	198,373	289	82,179	–	–	1,277	109,712	
Drogheda	565	46,929	269	76,048	9	1,773	–	–	184	13,480	
Dublin	6,179	591,030	1,800	590,016	247	74,443	–	–	2,089	151,634	2,
Dundalk	701	54,548	215	87,034	15	3,291	–	–	124	9,277	
Galway	158	23,303	27	15,532	28	9,186	–	–	126	15,222	
Limerick	380	89,089	116	33,173	99	28,754	–	–	231	32,587	
Londonderry	914	84,802	467	122,975	81	23,477	1	197	313	29,159	
Newry	1,026	75,172	348	60,765	33	8,593	–	–	281	20,833	
Ross	290	27,009	323	27,132	14	4,098	–	–	63	7,524	
Skibbereen	257	14,366	–	–	11	2,529	–	–	141	9,491	
Sligo	269	25,353	153	35,951	33	8,081	–	–	161	12,287	
Strangford	517	27,609	–	–	1	198	–	–	215	10,309	
Tralee	202	15,780	75	23,758	30	7,339	–	–	90	7,442	
Waterford	1,388	133,245	772	249,354	92	26,275	–	–	653	46,408	
Westport	94	8,146	21	4,154	9	2,005	–	–	124	7,945	
Wexford	647	43,459	161	37,014	5	1,306	–	–	335	18,923	
Total, Ireland	20,819	1,879,466	7,154	2,101,297	1,151	325,810	1	197	7,400	579,539	7,
Isle of Man	1,443	85,042	68	12,445	30	3,277	–	–	688	47,793	
*Channel Islands	816	49,117	255	19,162	221	16,935	87	3,992	798	36,414	

* *Note.*—Voyages between the United Kingdom and the Channel Islands are not included, be

General Register and Record Office of Seamen,
London, 30 May 1862.

Outwards.					Total Inwards.				Total Outwards.			
	Foreign.				British.		Foreign.		British.		Foreign.	
Vessels.	Sailing Vessels.		Steam Vessels.		Sailing and Steam Vessels.		Sailing and Steam Vessels.		Sailing and Steam Vessels.		Sailing and Steam Vesse	
Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
- -	1	65	-	-	557	29,755	18	1,132	271	14,399	1	6
19,560	17	1,725	-	-	515	47,019	24	2,285	209	23,738	17	1,72
20	1	30	-	-	807	37,558	5	401	87	4,344	1	3
92,208	8	1,578	-	-	1,101	96,907	8	1,404	3,988	349,764	8	1,57
- -	24	3,973	-	-	497	43,857	48	7,651	184	9,859	24	3,97
- -	4	331	-	-	483	27,907	4	331	268	12,958	4	33
2,115	1	80	10	1,738	83	5,149	1	80	1,220	104,796	11	1,81
39,229	50	5,866	-	-	1,906	179,928	86	12,138	776	75,584	50	5,86
1,157,089	3,302	860,873	411	136,438	24,072	5,152,698	4,301	1,181,520	12,819	2,492,360	3,713	997,31
6,226,092	22,265	4,771,799	1,023	375,852	130,881	18,135,450	21,627	4,782,943	144,693	19,170,174	23,288	5,147,65
170,363	42	4,823	-	-	2,156	329,911	171	16,517	1,233	228,003	42	4,82
2,850	381	37,481	-	-	80	9,298	181	19,342	292	26,932	381	37,48
- -	4	294	-	-	516	35,517	24	2,656	262	17,417	4	29
16,172	4	630	-	-	450	32,113	4	699	1,555	102,927	4	63
- -	40	2,573	-	-	464	28,268	72	4,993	234	13,363	40	2,57
53	710	72,987	-	-	166	14,732	199	20,239	944	81,729	710	72,98
32,127	-	- -	-	-	581	43,692	-	- -	396	37,222	—	—
20,073	1	63	-	-	838	45,350	2	230	379	28,617	1	6
54,847	193	29,797	-	-	1,833	218,477	252	37,810	731	110,529	193	29,79
501,985	250	89,622	1	662	3,290	674,558	220	81,860	5,111	842,655	251	90,28
51,544	336	49,234	38	9,371	432	76,650	317	49,337	438	81,002	374	58,60
61,097	46	20,205	9	4,391	1,662	259,256	99	31,753	1,102	193,285	55	24,59
88,683	26	2,526	-	-	2,321	182,582	34	4,877	2,018	171,742	26	2,52
43,708	221	52,189	-	-	597	71,145	71	7,872	5,163	444,330	221	52,18
10,791	512	46,590	-	-	594	39,852	197	17,419	1,176	74,459	512	46,59
23,615	19	1,571	-	-	427	34,553	23	2,481	393	33,515	19	1,57
293,417	203	32,444	3	701	2,002	396,438	915	108,299	1,564	354,301	206	33,14
18,316	17	1,017	-	-	144	25,377	16	914	127	23,434	17	1,01
- -	94	15,590	-	-	597	52,286	96	15,870	474	37,603	94	15,59
- -	8	774	-	-	212	14,480	50	4,482	206	13,915	8	77
3,813	42	3,058	-	-	600	39,797	45	3,484	519	34,806	42	3,05
665	2	1,726	-	-	66	32,021	9	4,312	45	17,683	2	1,72
26,152	4	230	-	-	203	31,318	6	567	192	30,461	4	28
28,368	2	910	-	-	738	46,067	4	1,454	468	35,405	2	91
72,473	101	6,300	-	-	1,000	100,953	95	5,593	830	94,835	101	6,30
16,630	-	- -	-	-	652	31,910	-	- -	480	31,128	—	—
1,532,742	3,258	472,634	51	15,125	22,621	2,866,601	3,102	443,060	26,332	3,161,298	3,309	487,76
426	-	- -	-	-	130	9,958	2	368	121	8,428	—	—
490,393	85	23,603	-	-	6,587	861,352	150	41,226	2,555	558,109	85	23,6
15,787	1	343	-	-	408	60,107	3	689	102	17,375	1	3
196,503	80	22,713	-	-	2,514	426,600	289	82,179	1,734	306,215	80	22,7
92,845	5	1,229	-	-	834	122,977	9	1,773	522	106,325	5	1,2
668,750	191	59,055	-	-	7,979	1,181,046	247	74,443	4,171	820,384	191	59,0
87,424	7	1,469	-	-	916	141,582	15	3,291	337	96,701	7	1,4
15,310	13	4,960	-	-	185	38,835	28	9,186	152	30,532	13	4,9
33,536	19	6,035	-	-	496	122,262	99	28,754	348	66,123	19	6,0
114,421	22	6,388	1	197	1,381	207,777	82	23,674	758	143,580	23	6,5
59,537	18	4,739	-	-	1,374	135,937	33	8,593	612	80,370	18	4,7
27,132	1	357	-	-	613	54,141	14	4,098	386	34,656	1	3
- -	4	982	-	-	257	14,366	11	2,529	141	9,491	4	9
35,872	15	4,485	-	-	422	61,304	33	8,081	321	48,159	15	4,4
- -	1	198	-	-	517	27,609	1	198	215	10,309	1	1
- -	9	2,440	-	-	277	39,538	30	7,339	90	7,442	9	2,4
228,310	32	10,578	-	-	2,160	382,599	92	26,275	1,348	274,718	32	10,5
4,154	4	843	-	-	115	12,300	9	2,005	145	12,099	4	8
36,653	2	562	-	-	808	80,473	5	1,306	496	55,576	2	5
2,107,053	509	150,979	1	197	27,973	3,980,763	1,152	326,007	14,554	2,686,592	510	151,1
14,233	25	2,830	-	-	1,511	97,487	30	3,277	764	62,026	25	2,8
18,771	178	12,337	88	4,048	1,071	68,279	308	20,927	1,052	55,185	266	16,3

ing accounted for at the several Ports of Great Britain and Ireland where the vessels entered and cleared.

J. H. Brown,
Registrar General of Shipping and Seamen

RETURN of the NUMBER and TONNAGE of SAILING VESSELS Registered at each of the PORTS of the COLONIES of the United Kingdom respectively, distinguishing those under and those above Fifty Tons Register, on the 31st day of December 1861:—A similar RETURN of STEAM VESSELS and their TONNAGE.

	Sailing Vessels.				Steam Vessels.			
	Of and under 50 Tons.		Above 50 Tons.		Of and under 50 Tons.		Above 50 Tons.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
AFRICA:								
Sierra Leone	26	495	9	1,167	—	—	—	—
Gathurst	52	810	15	1,463	—	—	—	—
Cape of Good Hope	11	342	35	5,862	- -	- -	3	283
Mauritius	75	2,379	74	17,021	- -	- -	2	154
AUSTRALIA:								
Sydney	187	4,774	233	36,688	19	469	36	7,569
Melbourne	143	3,853	315	51,713	11	329	12	1,120
Hobart Town	93	2,495	90	16,067	1	29	5	900
Launceston	22	533	14	2,121	3	110	4	567
Adelaide	32	877	35	5,435	2	71	11	1,206
Fremantle	18	380	4	718	2	35	—	—
New Zealand	208	4,619	27	3,504	1	15	6	471
AMERICA (BRITISH NORTHERN COLONIES):								
Newfoundland	781	24,300	664	70,669	2	45	—	—
Canada	377	12,642	571	80,824	31	1,092	106	27,695
New Brunswick	357	8,791	440	152,654	13	350	15	2,017
Nova Scotia and Cape Breton.	1,851	51,707	1,435	199,913	2	86	5	951
Prince Edward Island	119	3,453	164	23,063	- -	- -	1	68
BRITISH WEST INDIES:								
Antigua	49	698	7	441	—	—	—	—
Barbadoes	11	410	9	619	- -	- -	1	89
Dominica	9	151	11	59	—	—	—	—
Grenada	37	417	—	—	—	—	—	—
Jamaica	77	1,841	21	2,702	—	—	—	—
Montserrat	- -	- -	3	171	—	—	—	—
Nevis	2	29	—	—	—	—	—	—
St. Christopher	18	224	4	317	—	—	—	—
St. Lucia	11	262	1	250	—	—	—	—
St. Vincent	39	571	7	797	—	—	—	—
Tobago	1	27	1	57	—	—	—	—
Tortola	13	123	4	376	—	—	—	—
Trinidad	42	711	3	462	—	—	—	—
Bahamas	199	4,379	76	8,462	- -	- -	1	576
Bermuda	3	82	29	3,303	—	—	—	—
Demerara	36	987	11	978	—	—	—	—
Berbice	17	300	2	133	—	—	—	—
Yucatan	16	207	1	183	—	—	—	—
Belize	34	717	7	614	—	—	—	—

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar General of Shipping and Seamen.

A RETURN of the NUMBER and TONNAGE of NEW VESSELS Built in the United Kingdom, and at each of the British Possessions respectively (distinguishing Timber from Iron, and Steam from Sailing Vessels), and Registered as British Ships, in the Year 1861.

	Sailing Vessels.				Steam Vessels.			
	Timber.		Iron.		Timber.		Iron.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
UNITED KINGDOM:								
England - - -	607	89,253	32	18,337	38	1,709	91	34,819
Scotland - - -	105	17,172	11	4,390	4	792	56	24,738
Ireland - - -	19	818	- -	- -	- -	- -	12	8,811
Total for United Kingdom -	731	107,243	43	22,727	42	2,501	159	68,368
BRITISH POSSESSIONS:								
Channel Islands -	35	3,529	—	—	—	—	—	—
Malta - - -	1	14	—	—	—	—	—	—
North American Provinces - - -	449	108,169	- -	- -	2	169	—	—
West Indies - -	39	558	—	—	—	—	—	—
Australia and New Zealand - -	23	2,357	- -	- -	2	42	—	—
East Indies and Singapore - - -	2	92	—	—	—	—	—	—
Ceylon - - -	10	506	—	—	—	—	—	—
Mauritius - - -	4	108	—	—	—	—	—	—
Cape of Good Hope -	1	20	—	—	—	—	—	—
West Coast of Africa -	3	32	—	—	—	—	—	—
Total for British Possessions -	567	115,385	- -	- -	4	211	—	—
Total for United Kingdom and British Possessions -	1,298	222,628	43	22,727	46	2,712	159	68,368

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar General of Shipping and Seamen.

RETURN of the Number of Vessels, with their Tonnage (distinguishing Timber from Iron, and Steam from Sailing Vessels), that were Registered in the United Kingdom as new ships in the Year 1861.

	Timber.		Iron.	
	Vessels.	Tons.	Vessels.	Tons.
iling Vessels	929	215,231	42	22,583
eam Vessels	50	2,986	165	70,100
Total	979	218,217	207	92,683

Note.—This Return includes Vessels bought of Foreigners.

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of Vessels Sold and Transferred in the United Kingdom, in the Year 1861, distinguishing Steam from Sailing Vessels.

	Vessels.	Tons.
iling Vessels	1,366	268,321
eam Vessels	160	46,179
Total	1,526	314,500

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of Vessels Wrecked in the Year 1861, belonging to the United Kingdom.

	Vessels.	Tons.
iling Vessels	635	140,742
eam Vessels	28	10,494
Total	663	151,236

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of Vessels Broken up in the Year 1861, belonging to the United Kingdom.

	Vessels.	Tons.
iling Vessels	63	5,842
eam Vessels	9	1,599
Total	72	7,441

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of the Number of Colonial-built Vessels, and their Tonnage, Registered at each of the Ports of the United Kingdom, in the Year 1861; distinguishing the Number and Tonnage of each Colony respectively.

	Canada.		New Brunswick.		Nova Scotia and Cape Breton.		Prince Edward Island.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
London	–	–	1	390	–	–	1	184
Bristol	–	–	1	890	–	–	–	–
Cardiff	2	769	–	–	–	–	–	–
Faversham	–	–	–	–	–	–	1	189
Folkestone	–	–	–	–	–	–	1	156
Liverpool	4	2,622	7	7,491	–	–	–	–
Plymouth	–	–	–	–	–	–	2	258
Aberdeen	–	–	1	756	–	–	–	–
Ayr	–	–	–	–	1	190	–	–
Glasgow	1	1,170	2	1,287	–	–	–	–
Greenock	1	831	–	–	–	–	–	–
Wexford	–	–	4	376	1	292	–	–
Total	8	5,392	16	11,190	2	482	5	787

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of the Number of Foreign-built Vessels, and their Tonnage, Registered at each of the Ports of the United Kingdom, in the Year 1861.

	Vessels.	Tons.		Vessels.	Tons.
London	26	17,270	Teignmouth	1	777
Bristol	3	1,394	Whitby	1	112
Carnarvon	1	19	Aberdeen	2	812
Cardiff	3	378	Glasgow	4	2,278
Dover	1	25	Greenock	1	477
Falmouth	2	595	Irvine (Ardrossan)	1	430
Fowey	1	68	Kirkwall	1	153
Hartlepool	2	1,104	Leith	1	854
Hull	1	74	Lerwick	1	59
Liverpool	66	47,297	Belfast	2	1,711
Ramsgate	1	645	Cork	1	361
Rye	1	68	Dublin	1	636
South Shields	1	667			
Sunderland	4	2,414	Total	130	80,678

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

A RETURN of the Shipping employed in the Trade of the United Kingdom, exhibiting the Number and Tonnage of Vessels that entered Inwards and cleared Outwards (including their repeated Voyages), separating British from Foreign Vessels, also Steam from Sailing Vessels, and distinguishing the Trade with each Country, in the Year 1861.

COUNTRIES.		Inwards.				Outwards.			
		British.		Foreign.		British.		Foreign.	
		Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Russia	Steam	179	104,656	25	16,004	191	106,043	32	17,528
	Sailing	1,471	336,203	1,455	340,627	1,173	258,892	1,094	201,727
Sweden	Steam	56	27,145	21	4,913	57	27,424	21	5,276
	Sailing	276	49,120	1,693	305,048	236	37,578	1,588	263,254
Norway	Steam	19	6,158	17	6,647	20	6,557	31	9,641
	Sailing	75	8,285	2,025	327,736	67	10,362	2,071	364,216
Denmark	Steam	143	60,123	19	4,977	91	23,747	37	9,720
	Sailing	163	31,086	1,540	127,921	504	91,155	4,754	579,497
Prussia	Steam	200	78,975	70	20,115	234	93,661	59	17,527
	Sailing	679	99,887	1,719	329,745	683	99,724	1,766	343,441
Germany	Steam	697	231,237	328	161,163	726	249,496	310	118,293
	Sailing	1,645	335,008	2,047	237,429	1,614	310,151	2,221	237,675
Holland	Steam	1,116	329,990	289	62,691	1,005	284,719	293	63,547
	Sailing	1,297	197,789	1,543	198,153	1,203	176,480	636	52,096
Belgium	Steam	621	139,422	230	49,178	598	129,573	73	24,309
	Sailing	762	98,336	934	147,190	594	51,139	152	23,475
Channel Islands	Steam	543	85,634	–	–	569	88,467	–	–
	Sailing	1,516	134,768	46	5,735	1,007	71,735	1	24
France	Steam	2,799	575,889	366	54,623	2,450	519,109	60	17,964
	Sailing	6,004	689,749	6,191	645,349	6,122	729,979	4,946	403,163
Portugal	Steam	158	61,810	5	1,950	174	62,902	3	1,304
	Sailing	719	84,716	173	25,288	656	80,865	434	77,969
Spain	Steam	50	15,806	84	31,699	56	23,637	83	33,199
	Sailing	922	139,259	390	64,794	1,390	279,287	910	182,184
Gibraltar	Steam	37	19,460	–	–	50	26,563	1	266
	Sailing	19	3,598	3	1,353	240	39,955	65	21,295
Italian States	Steam	133	98,516	2	983	145	115,500	5	1,503
	Sailing	442	73,174	316	67,931	523	109,757	1,050	291,465
Malta	Steam	5	3,513	–	–	22	18,228	–	–
	Sailing	17	4,794	3	776	168	50,621	133	40,865
Ionian Islands	Steam	20	12,373	–	–	10	6,628	–	–
	Sailing	66	9,082	5	848	49	10,670	43	13,669
Greece	Steam	9	4,614	–	–	4	1,683	–	–
	Sailing	63	9,904	6	939	39	8,833	46	12,767
Turkey	Steam	36	31,036	–	–	33	30,373	–	–
	Sailing	196	52,980	183	52,331	184	49,237	274	77,239
Wallachia and Moldavia	Steam	3	1,049	–	–	8	3,982	–	–
	Sailing	159	30,905	219	43,632	29	4,926	35	5,704
Syria	Steam	20	14,853	–	–	4	3,136	–	–
	Sailing	8	1,634	2	355	24	5,861	7	1,758
Africa	Steam	124	110,106	3	1,351	98	92,305	–	–
	Sailing	682	189,265	257	68,684	688	218,275	347	99,322
Asia	Steam	9	8,845	–	–	12	6,562	–	–
	Sailing	1,111	814,383	150	113,704	1,267	992,855	355	271,246
America:									
British Northern Colonies	Steam	37	61,991	–	–	44	68,667	1	662
	Sailing	1,780	888,626	616	363,167	1,724	848,094	293	191,540
British West Indies	Steam	–	–	–	–	2	698	–	–
	Sailing	822	262,790	68	21,913	787	240,740	65	23,756
Foreign West Indies	Steam	28	49,138	3	2,027	34	50,786	4	2,412
	Sailing	284	79,313	421	130,398	349	109,115	577	184,566
United States	Steam	154	209,386	4	5,686	153	221,088	41	62,851
	Sailing	789	468,672	1,584	1,304,066	449	250,408	1,334	1,191,468
Central and Southern States	Steam	18	18,914	1	1,880	18	19,539	1	150
	Sailing	699	258,777	300	107,555	745	271,000	446	174,898
Falkland Islands	Steam	–	–	–	–	–	–	–	–
	Sailing	1	194	–	–	3	626	–	–
Whale Fisheries	Steam	15	5,217	–	–	15	5,219	–	–
	Sailing	11	2,882	–	–	17	4,885	1	124
Total		29,907	7,721,035	25,356	5,458,554	29,357	7,699,497	26,699	5,716,555

General Register and Record Office of Seamen,
London, 30 May 1862.

J. H. Brown,
Registrar-General of Shipping and Seamen.

SHIPPING.

RETURNS of the Number and Tonnage of SAILING and STEAM VESSELS Registered at each Port of the United Kingdom, &c.; SHIPPING Entered and Cleared; SHIPS Built, Registered, &c.—(In continuation of Parliamentary Paper, No. 261, of Sess. 1861.)

(*Mr. Ingham.*)

Ordered, by The House of Commons, *to be Printed,*
2 *June* 1862.

Under 3 *oz.*

RETURN to an Order of the Honourable The House of Commons, dated 9 April 1862;—*for*,

A RETURN "showing the Number of VESSELS and TONNAGE entered Inwards and cleared Outwards at each of the Twelve principal Ports of the United Kingdom; also, the Official and Declared Value of Imports and Exports for each of the said Ports, during the Year 1861 (in continuation of Parliamentary Paper, No. 334, of Session 1861)."

RETURN showing the Number of VESSELS and TONNAGE entered Inwards and cleared Outwards at each of the Twelve principal Ports of the United Kingdom, during the Year 1861.

PORTS.	ENTERED INWARDS.		CLEARED OUTWARDS.	
	Vessels.	Tons.	Vessels.	Tons.
London	10,967	3,163,142	8,449	2,428,306
Liverpool	5,041	2,943,166	5,371	3,007,943
Hull	2,942	682,446	2,328	570,024
Bristol	875	266,300	365	122,930
Newcastle	4,855	776,643	8,168	1,494,588
Southampton	1,077	343,687	979	330,279
Leith	1,478	249,914	509	139,676
Glasgow	676	213,822	943	303,488
Greenock	400	152,138	265	126,028
Dublin	578	155,511	293	97,657
Cork	492	138,892	182	51,676
Belfast	255	73,869	117	38,977
TOTAL	29,636	9,159,530	27,969	8,711,572

General Register and Record Office of Seamen and Shipping, London, 5 May 1862.

J. H. Brown, Registrar-General of Seamen and Shipping.

STATEMENT of the Official and Declared Value of the EXPORTS, and Official Value of the IMPORTS, of each of the Twelve principal Ports of the United Kingdom, during the Year 1861.

	Declared Value of British and Irish Produce and Manufactures Exported from the respective Ports to Foreign Countries and British Possessions Abroad, in the Year 1861.
	£.
London	30,974,525
Liverpool	52,241,445
Hull	13,989,123
Bristol	347,741
Newcastle	1,706,471
Southampton	2,781,311
Leith	1,291,832
Glasgow	5,259,887
Greenock	636,503
Dublin	28,138
Cork	131,679
Belfast	27,094
Aggregate of the Twelve Ports £.	109,415,749

Note.—The foregoing Statement, embracing a portion only of the information required by the Honourable House, is respectfully submitted as the best Return that can be made to their Order. The *Official* Value, whether of Imports or of Exports, is of necessity wholly excluded from it; this Value, which is obtained by calculation from certain fixed rates applied to the quantities of the various commodities, being computed only on the Importations and Exportations of the kingdom at large. *The Declared Value of British and Irish Produce and Manufactures Exported*, being collected from the merchants' entries, is ascertainable for each Port individually, and is accordingly exhibited.

Of the Trade carried on under Coasting Regulations, between Port and Port of the United Kingdom, there is no official record.

Office of the Inspector-General of Imports and Exports, Custom House, London, 27 May 1862.

John A. Messenger.

VESSELS AND TONNAGE, &c.

RETURN showing the Number of VESSELS and TONNAGE entered Inwards and cleared Outwards at each of the Twelve principal Ports of the United Kingdom; also, the Declared Value of IMPORTS and EXPORTS, for each of the said Ports, during the Year 1861 (in continuation of Parliamentary Paper, No. 334, of Session 1861).

(*Mr. Horsfall.*)

Ordered, by The House of Commons, *to be Printed,* 29 *May* 1862.

284.

ELECTRIC LIGHT.

RETURN to an Order of the Honourable the House of Commons, dated 30 July 1862;—*for*,

A COPY "of MR. FARADAY'S REPORTS on the ELECTRIC LIGHT to the ROYAL COMMISSIONERS, and of those made by order of the TRINITY BOARD."

Board of Trade, 4 August 1862.

EDGAR A. BOWRING, Registrar.

—I.—

MR. FARADAY'S REPORTS TO THE ROYAL COMMISSIONERS.

IT will be seen by the following extract from a letter from the Chairman of "the Commissioners appointed to inquire into the condition and management of Lights, Buoys, and Beacons," that the only Report made to the Commissioners is embodied in the second part of this Return. (*See* page 5.)

"Macartney House, Blackheath, S.E.,
"Sir, 4th August 1862.

"IN reply to your letter (No. 8634) of the 2d instant, enclosing copy of an Order of the House of Commons, and signifying the wish of the Lords of the Committee of Privy Council for Trade that I should furnish them with a copy of Professor Faraday's Report on the Electric Light to the Royal Commissioners on Lighthouses, I beg to state that the Report furnished to the Commissioners is copy of that made to the Elder Brethren of the Trinity House by Professor Faraday on the 29th April 1859, and is to be found at page 2, vol. 1, of the Appendix to the Report on Lights, Buoys, and Beacons.

* * * * *

"I have, &c.
(signed) "*W. A. B. Hamilton*,
"The Secretary "Vice-Admiral."
Marine Department, Board of Trade."

—II.—

MR. FARADAY'S REPORTS made by Order of the TRINITY BOARD.

Sir, Trinity House, London, E. C., 11th October 1862.

I AM directed by the Elder Brethren to transmit to you the accompanying copies of Professor Faraday's Reports on the Electric Light made by order of this Board to enable their Lordships to comply with an Order of the House of Commons, as requested by your letter of the 2d August last.

I have, &c.
The Secretary (signed) *P. H. Berthon.*
Marine Department, Board of Trade.

Reports of Professor *Faraday* on the Electric Light, made by Order of the Trinity Board.

No. 1.

[After reporting on certain experiments at Blackwall, observed from Woolwich in which some dioptric panels with a central four-wick lamp, were contrasted with an arrangement of reflectors three to a face, as at Buchaness; Professor Faraday proceeds:]

Royal Institution, 3rd April 1857.

The panels were then again employed, but the central lamp was changed for the Electric Light of Professor Holmes. An extraordinary alteration in the results was now evident; as the apparatus revolved, a beam of light issuing from it was seen to sweep round, which when it came up to the eye struck it for an instant with a beautiful and intense light, and then passed away on the other side. The brilliancy at the moment was far above that of either of the former arrangements. This was chiefly due to three circumstances: first, the greater amount of light from the electric lamp than from the concentric wick lamp; next the concentration of the light into a small space not more than the third or fourth of an inch in diameter; and lastly, the absence of anything like the great burner, which causes so much shadow in respect of the lower rays of light from the four-wicked lamp. It is the second circumstance, or smallness in size of the light itself, which, allowing every part to be brought nearly into the focus of the lenses, causes the brilliant ray already described to be sent forward to the observer at a distance. The *divergence* of the issuing beam is greatly diminished, and its *intensity* proportionately increased. The *duration* of the light is of course diminished also. The power of gathering up the light into one intense brief beam which is obtained by the electric lamp, is unattainable, as I believe, by any lamp dependant on the combustion of oil or fuel of any kind.

The electricity for this light was procured, not from a chemically acting voltaic battery, but from the power of moving magnets, in what is known as a magneto-electric machine; a two-horse steam engine is required to move it, but there is no consumption of the parts, otherwise than by ordinary wear and tear. When the lenses were removed and the electric and concentric-wicked lamps placed in sight at once, the former was evidently much the brightest, but Dr. Holmes has not as yet made any comparison of the two, or given expressions of their relative illuminating power. Being examined near at hand, I found the Electric Light very pure and white, and very steady; there was none of the variation or flickering which occurs with the *voltaic light*; what alternations existed were so small, constant, and numerous, that the result to the eye was a perfectly steady illumination.

(signed) *M. Faraday.*

No. 2.

[The Trinity House having addressed a letter to Professor Holmes on 22d April 1857, requesting him to furnish them with a succinct plan of the manner in which he proposed to adapt the invention to the various contingencies which might arise in the case of lighthouses situated in remote positions, where skilled mechanical labour is not procurable, the reply of that gentleman is given, in double column, with the remarks of Professor Faraday thereon.]

Professor *Holmes* to Mr. *Berthon.*

1. I will endeavour to answer your letter of 22d instant in the best manner I can, hoping at the same time that

Professor *Faraday's* Report.

1st May 1857.

1. In order to present such observations upon Professor Holmes' letter, as arise

Professor *Holmes* to Mr. *Berthon*.

that the Elder Brethren will be satisfied with my answers as far as they go. As, without seeing the particular locality, it would be impossible, perhaps, to say in that particular case how I would adapt the machine. But in hardly any possible case can there arise any real difficulty in adapting the machine, as the light may (where necessary) be at a considerable distance from the machine without much lessening the amount of light.

2. The cost of a single machine and steam engine would be about 500*l.* The steam engine supplied with the machine would be of the most simple construction, acting directly on a crank fixed to the axle of the machine. No strap or band would be employed.

3. The expense of the light would be about from 1½*d.* to 3*d.* per hour, for coal and carbons, and the pay of a skilled workman until the ordinary lightkeepers would be sufficiently instructed by him to maintain the light without his assistance.

4. If the Elder Brethren will allow us to place an Electric Light in any lighthouse where there would not be any great expense incurred for building, &c. for (say) three months, we will be at all expenses (and the ordinary lights need not be disturbed during that time) on condition that at the expiration of the three months the Corporation will adopt the light generally in their lighthouses if it fulfils the following conditions to *their entire satisfaction*, viz.

5. First, that it costs less than the ordinary lights.

6. Second. That it is more effective in bad or foggy weather.

7. Thirdly. That during that time it is not stopped on account of accident for any time equal to that taken to trim an ordinary lamp.

Professor *Faraday's* Report.

arise in my mind, I have numbered the paragraphs of his communication, and hope that a reference to them by figures will be clear and sufficient.

2. The cost and arrangement of the machine can only be tested by practice.

3. The expense of the light can only be learned by a continued practical trial.

4. It would not be safe to give any pledge of general adoption; the application might be very difficult and uncertain in the results at out-of-the-way stations. Better far to pay a sum for expenses of trial, and remain at perfect liberty to reject or apply the lamp according to circumstances. The Trinity House only can be the safe, as they are the responsible, judges for any and every case.

5. Does this statement mean that for the same amount of light it will cost less? or that the lights, referred to in pars. 3 and 8, as the Electric Lights, cost less than the first class three-wicked lamp refered to in par. 8, or does it mean that the sum of all expenses, including interest of capital invested, wages of intelligent workmen, fuel, &c., will be less for the electric lamp of *fivefold* light power (8 & 9), or less for an *equal* proportion of light power?

6. No doubt true for the fivefold light power.

7. In relation to this condition, will it not be necessary to have a second magneto-electric engine ready to supply the light, when, in course of time

Professor *Holmes* to Mr. *Berthon*.

Professor *Faraday's* Report.

or by accident, the one in use might be thrown out of employ? Would not a second steam-engine be required for the same reason? Manufacturers are accustomed to keep an extra boiler ready for work, with steam engines, on such occasions.

8. I will here, sir, beg you to lay before the Elder Brethren the results of certain photometric experiments made with a view to ascertain the comparative powers of a first-class three-concentric wick lamp and our Electric Light, as it will serve as a demonstration of the assertion made above.

8 and 9. Can say nothing about the estimate; it is an experimental result. But the light I saw was considerably greater than that of the French lamp.

9. The first experiment was for the comparison of the *quantity* of light given off by each, and was made at 12 feet distance. The results were—

	Quantity of Light.
Oil lamp - - -	1
Electric ditto - - -	5½

As the distance was increased so did the difference increase also; and thus I was enabled to arrive at the *intensity*.

	Intensity of Light.
Oil lamp - - -	1
Electric ditto -	5,625

10. By *intensity* is to be understood that property of light which enables it to penetrate to a distance; and, taking the above example, suppose that the two unassisted lights are viewed from a distance, on a foggy night, and that it is found that the oil lamp could usefully penetrate that fog to the distance of 100 yards, then the Electric Light would be equally visible at the distance of $100 \times \sqrt{5{,}625} = 7500$ yards.

10. Needs a practical result for its illustration.

11. No *quantity* can ever make up for the want of intensity. For were there a hundred of such oil lamps employed, where one would become invisible, from distance or fog, *each one* would equally become so.

Intensity, therefore, and not *quantity*, is that property required in a light-house, and this property exists only in the Electric Light to any great degree.

11. Not altogether so. If it were, then a common Argand lamp would be visible as far off as a concentric wick lamp; and six lamps and reflectors in one cant of a revolving apparatus would not penetrate, to a seaman's observation, further than one lamp and reflector. Without reasoning on intensity and quantity, what is wanted is, simply, *that light* which is either more luminous or more visible at greater distances than another, to the eye of an ordinary observer.

12. When

12. Not

Professor *Holmes* to Mr. *Berthon*.	Professor *Faraday's* Report.
12. When the Electric Light is employed with a reflector, the quantity of light thrown off from it is much greater than when an oil lamp is used. Because, as the reflector only repeats the light of any lamp in proportion of —— area of flame, divided into area of reflector—and as our area of flame is more than a thousand times less than the area of the oil lamp, the light given off would be a thousand times greater, even though the original *unassisted* lights were equal in quantity.	12. Not so. The quantity of light reflected is not *in greater proportion.* The good effect (which is undoubted) depends upon the power of diminishing the divergence, and throwing almost all the light into one intense central beam, instead of spreading it into a wider, weaker beam.
(signed) *F. H. Holmes.*	I hope a situation may be selected where the magneto-electric lamp can be safely and effectually tried, for a time and under circumstances during which all the liabilities may be thoroughly eliminated. The light is so intense, so abundant, so concentrated and focal, so free from under shadow (caused in the common lamp by the burner), so free from flickering, that one cannot but desire that it should succeed. But it would require very careful and progressive introduction; men with peculiar knowledge and skill to attend it; and the means of instantly substituting one lamp for another in case of accident. The common lamp is so simple, both in principle and practice, that its liability to failure is very small. There is no doubt that the magneto-electric lamp involves a great many circumstances tending to make its application more refined and delicate, but I would fain hope that none of them will prove a barrier to its introduction. Nevertheless, it must pass into practice only through the ordeal of a full, searching, and prolonged trial.
	(signed) *M. Faraday.*

No. 3.

Report on the Magneto-Electric Light, established by Professor *Holmes* at the High Lighthouse, South Foreland.

Royal Institution, 29th April 1859.

The light applied in the South Foreland Upper Lighthouse is an Electric Light; not produced, however, by a voltaic battery, but by magneto-electric induction. In the year 1831* it was discovered that when a piece of soft iron, surrounded by a metallic wire, was passed by the poles of a magnet, an electric current was produced in the wire, which could be exalted so as to give a spark. The apparatus of Professor Holmes, which is figured and described in the accompanying paper A, consists of an accumulation of powerful magnets and iron cores with surrounding coils, accurately arranged, so that when the associated cores are revolving they send all their currents into one common channel, from whence they are conveyed to the lantern by conducting wires, and there produce the Electric Light. There is no consumption of material or energy, other than that of the burning fuel required at the steam engines to produce motion.

A trial of the light began in the lighthouse, on the 8th of December 1858, but as the apparatus was imperfect in some points and the results unsatisfactory,

* Philosophical Transactions, 1832, p. 131—*Faraday.*

tory, the lighting by the apparatus was suspended for a while, that the defects might, if possible, be remedied. The lighting was renewed on the 28th March, and has been continued regularly since. I have had the honour of accompanying the Deputy Master and Brethren, both on the former and present occasion, so that I know personally what that light *was* and *is*. No report was made at the former time, because of the expected improvement of the arrangement; but it now becomes my duty to report on such matters regarding the lamp as properly fall within my province.

Being on board the yacht off Dungeness on the night of the 20th instant, about 21½ miles from the South Foreland, the weather being rainy and the sky covered with clouds, we could see (when the sun went down) the high light illuminated and appearing as a faint star. I could not perceive the low light; but proceeding eastward the low light gradually became visible and the high light increased in brightness. When about S. W. by S., the yacht approached the lights more directly; then went eastward again, and after awhile turned and proceeded towards Dover; so that the observations were made through about one fourth of the horizon, and at very different distances, from the South Foreland. From the time the upper light was first seen until the last, it remained visible and *steady* (with the exceptions to be mentioned immediately), and much superior to the lower light when that also came in view. The exceptions were as follows:—At times, the high light fell off and once appeared almost out, when the lower light underwent no such change; this effect had been anticipated and was due to the following cause. The upright bars of the lantern windows and the dioptric apparatus are much broader than the Electric Light, the latter being indeed not more than one sixth of an inch in horizontal width; hence they throw deep and rather sharp shadows; by taking the bearings of these beforehand, it was found at sea that the falling off of the light *coincided* with these shadows, and hence the above exceptions. The evil occurs in part with the central oil lamp; and is in some lighthouses partly remedied by causing the window bars and astragals to incline from the perpendicular, and therefore out of the plane of refraction. Other remedies (in addition to this) are applicable in the case of the Electric Light; and in the present instance, the effect is lessened by the use of a small reflector at the lamp, close to and behind the light. The light was at all times white or even blue occasionally, in comparison with the low light, which appeared yellow or reddish.

The next day, I examined the lighthouse and apparatus both by day and night. The magneto-electric machines, steam engines, and steam condenser were generally as at the last visit. In respect of the *commutator* it had worn very little; the application of a file to the surface of one wheel had removed about the thirtieth of an inch of metal since the apparatus was first erected, there remaining about 1½ inches still ready for consumption in like manner, if needed. During the day time, I compared the intensity of the light with that of the sun; *i. e.* it was placed before and by the side of the sun and both looked at through dark glasses; its light was as bright as that of the sun; but the sun was not at its brightest and was only seen at intervals between clouds.*

In the lantern there was now but one electric lamp in place; two others, however, being on the wire rails ready for change of lamp at any moment. The magneto-electric machines were set in action, and the lamps were manipulated with, both by day and night, to my entire satisfaction. When the steam engines were ready for action the machines could be set in motion, and the current evolved within the space of half a minute; the lamp could then be lighted in an instant; and if it were required to put out and displace that lamp and replace it by another, the operation could easily be performed by one person within 10 or 15 seconds. The light may be considered as at its full intensity at once, though it was reported to me as growing up in power until about four o'clock in the morning; an effect probably due to the continued recurring inductive action in the cores and coils of the revolving apparatus.

The place of the light, in respect of the dioptric apparatus, is exceedingly well retained; even more so than in the case of a lamp flame, which, though its base

* This has no reference to the quantity of light from the sun and the electric spark, which of course is dependant upon their apparent magnitude, but only to the apparent intensity or brightness.

base be fixed, varies in its height. The light itself is not that flickering, wavering, revolving light produced by the voltaic battery, but, in a sheltered atmosphere, as in the lantern, is fixed in its position; a fact of great importance in the application of small catoptric or dioptric apparatus. An important regulator of the character of the light is given by two magneto-electric coils, introduced into the circuit in the lantern. The light does not call for continued attention, but is often left untouched for one, two, or even three hours together. The eyes of the keepers are not affected, though the blue glasses provided for them are very pale in colour; for the light is better watched by observing the *place* and *intensity* of the rays which fall here and there on the walls of the lantern, than by looking at the light itself.

On going out to the hills round the lighthouse, the beauty of the light was wonderful. At a mile off, the apparent streams of light issuing from the lantern were twice as long as those from the lower lighthouse, and apparently three or four times as bright. The horizontal plane in which they chiefly took their way made all above or below it black. The tops of the hills, the churches, and the houses illuminated by it were striking in their effect upon the eye.

All the reports which have come in from the surrounding lighthouses, floating lights, and pilot vessels confirm the superiority of the upper light above the lower, though many of the reports are imperfect. Those from Dungeness are the best, and include 160 observations made between March 28th and April 16th. The Upper and the Lower South Foreland, and the Grinez Lights, were either visible or invisible from this station, according to the weather. The Upper South Foreland was visible first and oftenest, *i. e.*, *always*, if the others were. Then the Grinez came oftenest in sight, and then the Lower South Foreland; but these were nearly equal. The Grinez was sometimes in sight without the Lower South Foreland, but never without the Upper; and the Lower South Foreland was sometimes in sight without the Grinez. Upon the 160 observations there were 73 on which none of the three lights were visible, 86 upon which the upper light was visible, 40 upon which the lower light was visible, and 44 upon which the Grinez Light was visible. When both the upper and lower lights were visible, the upper (except in four cases) is said to be twice the power of the lower; in the four cases it is called equal. There was one exception on April 3d, at 10 o'clock P.M., when the upper light is stated to have *gone out*. The report does not say whether it came in again, but the weather at 11 o'clock is returned as very thick and misty. Generally the light is said to be very steady.

The keepers at the Goodwin and South Sand Head floating lights appear to have had a fair view of both upper and lower lights. If both were visible, the upper was much the most powerful, the upper was always visible; the lights were generally very steady; if wavering, both the upper and lower wavered at the same time, as if the cause were in the air, not in the lights. The reports from the Gull Stream Light are very poor, and afford no instruction; there is no comparison or mention of the upper and lower lights.

In fulfilment of this part of my duty, I beg to state that in my opinion Professor Holmes has practically established the fitness and sufficiency of the Magneto-electric Light for lighthouse purposes, so far as its nature and management are concerned. The light produced is powerful beyond any other that I have yet seen so applied, and in principle may be accumulated to any degree; its regularity in the lantern is great, its management easy, and its care there may be confided to attentive keepers of the ordinary degree of intellect and knowledge.

There are many other considerations beyond this establishment of the fitness of the light in principle and management for lighthouse purposes, regarding its introduction into lighthouses generally, on which I should hesitate to speak before those who are far more competent to judge of these matters than I am, were it not for the encouragement which the Brethren of the Trinity House give me, and especially as regards *this light* in respect of a letter from Professor Holmes, dated 28th April 1857, which I considered in my letter of the 1st of May. I will therefore venture to enumerate some points which are *against*, and others in *favour* of the light, and of a change in the present system: in the first place, the simplicity of the present system is very great compared with that of the Electric Light; only two keepers are required to a lighthouse, they need possess no special knowledge; ordinary attention is all that is necessary,

and thus failures of the light are almost impossible. In the new system, a second set of men will be required to attend the engines, and there must be amongst them one or more who understand the principle and construction of the lamp in the lantern, of the magneto-electric machines, the steam-engines and the condensers below, and be able to make *effectively* the repairs necessary to the apparatus; or, as I think is more probable, a competent resident intelligent engineer, with his stock of tools and means, will be required.

In the next place, the expense of the new system must be large compared to that of the present system. As *outfit*, there must be the cost of the two if not three magneto-electric machines, with the corresponding steam-engines; of the houses to contain them; of the cisterns, condensers, and water apparatus, and supply associated with them; of the electric lamps in the lighthouses with their connections; and of the lodging-houses for the extra men. And in respect of *current expenditure* additional provision must be made for the wages of the extra men, with coals and such things as are allowed them; the fuel for the engines; the supply of water; and the repairs required by the wear and tear of all the apparatus. To these causes of expense must be added the claims of the patentee. In the matter of expense for any given amount of light, I may say that the letters I have already referred to of the 28th April and 1st of May 1857, can scarcely be accepted as giving sufficient information. I conclude that, by this time, Professor Holmes is in a position to give an amended statement.

Amongst partial objections it may be stated that the light cannot be expected to apply to *all* lighthouses, or receive general adoption. I am not aware how many it might be fit for, but there are evidently some at extreme situations where it would be objectionable in its present state. An objection has also been made of which I cannot see the force: namely, that the light is too bright; that it gives a false impression of the distance of the lighthouse, and that it blinds the eyes of the mariners to the perception of the lights on board vessels between it and them. These objections, if they have any force, must be judged by mariners themselves.

The points *in favour* of the magneto-electric light, now that its practicability has been established, are strong and clear in relation to the increase of light and the advancement of lighthouses in power. In cases where the light is from lamp flames fed by oil, no increase of light at or near the focus or foci of the apparatus is possible, beyond a certain degree, because of the size of the flames; but in the electric lamp any amount of light may be accumulated at the focus and sent abroad, at of course an increased expense. In consequence of the evolution of the light in so limited a focal space, it may be directed seaward, diverging either more or less, or in a vertical or horizontal direction at pleasure, with the utmost facility. The enormous shadow under the light produced by the oil flame burner, which absorbs and renders useless the descending rays to a very large extent, does not occur in the magneto-electric lamp; all the light proceeding in that direction is turned to account. The optical part of the arrangement, whether dioptric or reflecting, might be very small in comparison with those in use. It is probable that the system either of reflectors or refractors need not be above 18 inches in diameter, perhaps much less, and probably a foot high. The glass of the lantern through which the rays would pass would not then require to be above 12 inches radius, *i. e.*, from the light. This would allow that part of the lantern to be constructed of curved plates of glass, framed above and below, and requiring no opaque, intervening, shadow-making uprights. There appears no reason why such a lantern should not enclose the electric lamp round seven-eighths of the horizon, and yet allow of all necessary attendance on, and change of, the lamps. Such arrangements however could only be made when the lamp is (if ever) perfectly established; for they would preclude the substitution of an oil lamp for the electric lamp, if any accident occurred to the latter.*

Before concluding this report, I must bear my testimony to the perfect openness, candour, and honour of Professor Holmes. He has answered every question, concealed no weak point, explained every applied principle, given every reason for a change either in this or that direction, during several periods of

* *See* observations regarding the construction of future apparatus at the end of the 10th Report, 19 May 1862.

of close questioning, in a manner that was very agreeable to me, whose duty it was to search for real faults or possible objections, in respect both of the present time and the future.

(signed) *M. Faraday.*

No. 4.

South Foreland Electric Light.

Royal Institution, 20th February 1860.

I WENT to Dover last Monday (the 13th instant); was caught in a snow storm between Ashford and Dover and nearly blocked up in the train; could not go to the lighthouse that night; and finding, next day, that the roads on the downs were snowed up, returned to London. On Friday I again went to Dover and proceeded by a fly that night, hoping to find the roads clear of snow; they were still blocked up towards the lighthouse, but by climbing over hedges, walls, and fields, I succeeded in getting there and making the necessary inquiries and observations.

The light was of the same fine character as when I last saw it; shining over the country and the sea. It was generally very steady, but with slight interruptions now and then from iron in the carbons. I found a new keeper in the lantern (Griffiths); he had learned how to attend the lamp readily and effectually. The light has a tendency to sudden and spontaneous extinction. This arises either from the breaking off of the end of the carbon, or from circumstances interfering with the delicacy of the fine mechanical work of the lamp. It happens two, three, or four times every night; and being once extinguished, the lamp does not re-light of itself. The slightest touch of the keeper's hand is enough to restore the light; but the liability causes an anxious watchfulness on the part of the attendant, who dares not descend to the guard-room, but is constrained to stop in the lantern continually. The light has never been stopped, as yet, by any deficiency of action in the machine room.

I found the two engines in the machine-room, and both the steam-engines, and also the magneto-electric machines, properly at work; the latter had not become deranged or given way at any point, and the magnets appeared by the results to be as powerful as ever. One of the steam-engines had met with an accident; the guide of the piston-rod broke, and the engine ceased to work; but fortunately this took place in the morning, and the engineer was able during the day to establish a temporary guide, which enabled the engine to go on working at nights until the repair was fully made. The water condensers and other parts acted properly, and as they were required.

Though I was not at the lighthouse on the Monday night, yet I could see from Dover that the light was at that time in its proper and regular condition.

(signed) *M. Faraday.*

No. 5.

Royal Institution, 28th February 1860.

THE appointed time, during which the Magneto-electric Light was to be placed under practical trial at the South Foreland, having come to an end, I may be allowed to say that it has, so far, justified itself in its results, as to make me hope that the Trinity House will see fit to authorise its application, either there or somewhere else, for a further and a longer period. The light has proved to be practical and manageable; and has supplied the means of putting into a lighthouse lantern, for six months or more, a source of illumination far surpassing in intensity and effect any other previously so employed. I do not know at what cost this result has been obtained, but unless that is very great indeed, I am of opinion that a large increase upon the expense of the old

method (estimated upon the quantity of light obtained) ought to be permitted in the first establishment of a mode of illumination, which apparently promises many improvements during its further development.

(signed) *M. Faraday.*

No. 6.

Royal Institution, 12th March 1860.

I HAVE been engaged in some observations upon the divergence of the electric beam, when emerging from a perfect lens, of the first order light apparatus, the electric spark being in the true focus. The lens was 39 inches high and 28 inches broad. I have no doubt the divergence in a vertical direction will be sufficient; indeed, it was proved to be so at the South Foreland. That in a horizontal direction will be less; both because the width of the lens is less than its height, and the width of the electric light is also smaller than its height, the two carbons used being one above and the other below. I fear, therefore, that the flash in the distance may, *with the present apparatus*, be of very short duration, though intense in power.

In a letter, dated 3d April 1857, is noticed the appearance, at Woolwich, of the Electric Light placed in the focus of the "Bishop's" apparatus at Blackwall; and there the beauty and briefness of the light is referred to.

If the illumination seaward is only over a limited number of degrees, then the light on the land side may, by small reflecting surfaces, be thrown seaward, so as to prolong in some degree the duration of the flash.

(signed) *M. Faraday.*

No. 7.

Royal Institution, 21st March 1860.

IN reference to your question respecting the introduction of the Magneto-electric Light at Dungeness, I see no reason to expect that there would be greater difficulty respecting the illumination of the sea than at the South Foreland. The diverging beam would strike the sea at about 750 yards' distance from the lighthouse at high water. With respect to the general effect to be looked for, there is not so much back light to be reflected seaward at Dungeness as at the South Foreland, 280° requiring illumination at the former; and therefore the amount of light in any one direction must not be expected to equal that obtained where only 180° or 200° were illuminated.

(signed) *M. Faraday.*

No. 8.

Royal Institution, 19th January 1861.

IN reply to your inquiry respecting my opinion of the propriety of placing the Magneto-electric Light at the Start Point, rather than at Dungeness, I have to say that I think it will be much better at the former place than at the latter. Though the first is a revolving light and the other a fixed light, Professor Holmes does not doubt that, with the Fresnel apparatus, now at the Start Point, he will have the same advantage over the ordinary lamp that he has practically obtained at the South Foreland. He does not see any reason to believe that, in respect of horizontal refraction at the former, there will be any difference or departure from the efficacy and action actually obtained in the vertical refractor belonging to the fixed light at the latter place; nor do I. Because, therefore, great preparatory expense will be saved by going to the Start Point; because much

much time will be saved; because the light will be much higher, and therefore better fitted to show at a distance the powers of the Magneto-electric Light; and because a success equal to that obtained at the South Foreland may be justly expected, whilst no liability of failure or other difficulty will be introduced that has not been tested at the South Foreland, I recommend strongly that the apparatus be placed at the Start Point.

I think, however, that Professor Holmes should look at the lighthouse lantern and apparatus, and approve of the change, that no objection should *hereafter* be started tending to throw off the responsibility and the approval; also, that he be responsible, as at the South Foreland, for providing the means of restoring the Fresnel lamp at any moment, if his own apparatus should fail; and that, as the change is from a fixed to a revolving light, he should be required to have a superintending care over it from the first, for such time as the Trinity House may deem necessary.

(signed) *M. Faraday.*

No. 9.

Report on the Magneto-Electric Light at the Dungeness Lighthouse.

Royal Institution, 21st February 1862.

I had the honour of being with the Deputy Master and Committee at the Dungeness lighthouse, on the 12th and 13th instant, for the purpose of examining the arrangements for, and the effect of, the Electric Light now established there, and it becomes my duty to make a report according to the result of my personal observation.

Communications of the dates, 29th April 1859, 20th February 1860, and 19th January 1861, regarding the Electric Light at the South Foreland, will sufficiently indicate the nature of the light, and the engines and machines required. At Dungeness, the Electric Light is now placed in an optic apparatus constructed especially for it, which is only 16 inches in height, and 14 inches in external diameter. The apparatus consists of six lenticular zones and seven reflecting zones; of the latter three are below and four above. At the South Foreland there was one electric lamp placed in the centre of a Fresnel optic apparatus. Here there are two of the new optic apparatus, placed one over the other in the axis of the lantern, and four electric lamps, for each apparatus two, only one lamp being used at a time. Mr. Holmes includes in his plan the use of all these lamps and apparatus, because of the facility of rapid change in the lamps, carbons, &c., and no doubt they are greatly advantageous in this respect. They cause no alteration in the magneto-electric machines, wires, engines, &c. which are the same as were employed at the South Foreland.

Beside the electric apparatus, the light from which passes through the upper panes of the lantern, the original reflectors and their lamps are retained in place, so that they can be at once substituted for the Electric Light, if any accident or failure should occur to the latter, and also may be used in conjunction *with* the Electric Light in a comparison of one with the other.

The four electric lamps appeared to me to be equally good and in equal acting order; they answered to the treatment applied to them; but must be considered as delicate apparatus, whether in regard to the attention necessary, or to their repair when out of order.

The two optic apparatus are so different from anything that has preceded them, that they cannot be compared with former apparatus. The glass was of good quality, and the workmanship excellent. Though they enclosed 275 degrees of the horizon, there was only one thin metallic joint in their length, and thus the cause of much interfering shadow was removed. The form and adjustment of the prisms seemed to be very good, *i. e.* the direction in which the light issued forth appeared to be quite right, so far as observation could be carried on, on shore and in the lantern. There was no good sea horizon visible by which the foci in the lamp centre could be tested; and besides that,

a good experimental investigation on land will be required hereafter to determine the direction of the most intense ray of light horizontally, or upwards or downwards; or the parallelism or divergence or convergence, using the practical foci as now arranged. The lower surface of the upper carbon has been made focus, in relation to the sea horizon, for the refracting belt, and the upper reflectors; and a spot 1-8th of an inch above this lower surface made focus for the lower reflectors. Generally speaking, the most intense rays proceed downwards, the next intense, horizontally, and the weakest, upwards.

The prisms of the present optic apparatus do not intercept all the light that proceeds generally in their direction. In an apparatus so new and original as this is, I am prepared to accept them for the present case; but in future apparatus this escape should be provided against. The small metal reflectors on the land side, which are very valuable in their action, may be a little enlarged hereafter with advantage, so as to catch all the escape light passing in that direction.

I did not observe any damp on the glass of the lantern in the daytime (during my observations with the light), but at night-time it appeared. There is no source of water or damp in the light itself (as there is in *oil* or *combustion* lamps); on the other hand, there is no sensible source of heat to keep the lantern and window clear. The damp was on the windows, both inside and outside; and the stove was so arranged on the land side only, as to be of little or no use to the lantern generally.

There should be a screen over the lamps at the ceiling between them and the cowl passage outwards.

The lantern glass was not quite perpendicular; but that I consider as of no consequence, as the issuing ray goes straight on. The astragals interfered here and there; but if the system succeeds there will be no difficulty hereafter in constructing the lantern glass, so as to present no obstruction of this kind.

The steam engines, magneto-electric machines, water condensers, &c. appeared to be in order; and they were separated by six or seven doors from the lantern, and could cause no dimness there. The machine-room required the whitewashed ceiling to be covered up; the engines and steam-pipes required to be jacketted or felted. As suggested by the engineer in charge, there is abundant heat produced from the condensing steam of the engines, for any purpose required in the tower or lantern, which could be employed there by a proper arrangement of steam-pipes.

Arrangements were made on shore (Mr. Holmes being in charge of the light), by which observations could be made at sea about five miles off, on the relative light of the electric lamp and the metallic reflectors with their Argand oil lamps; for either could be shown alone, or both together. At the given distance the eye could not separate the two lights, but by the telescope they were distinguishable. The combined effect was a glorious light up to the five miles; then, if the Electric Light was extinguished, there was a great falling off in the effect; though after a few moments rest to the eye, it was seen that the oil lamps and reflectors were in their good and proper state. On the other hand, when the Electric Light was restored, the glory rose to its first high condition.

Then, whilst both were in action, the reflectors were shaded, and the Electric Light left alone; but the naked eye could see no sensible *diminution*; nor when the reflectors were returned into effectual use could it see any sensible *addition* to the whole light power; though the telescope showed that the alteration in the lantern had taken place at the right time. Such was the power of the Electric Light, that the addition or subtraction of the light of a fully effective set of reflectors, with their lamps, would not have been sensible to a mariner, however observant he might have been.

Then the reflector lamps were put out, and the electric lamp alone observed for the rest of the time. Went to the Varne Light, 12 miles off; as we receded, the Electric Light was fine, but after nine miles seemed to fall off. At the Varne, the fine revolving or flashing light at Grinez (12½ miles distant), when at its maximum, was equal, and, I think, superior to the Electric Light; but the constant light of the latter, and the intermitting light of the former, must be remembered. Returned in towards the Dungeness Light, and at about nine miles, and within, had again reason to think that that distance was more favoured (by the adjustments) than the sea horizon distance.

The

The colour of the Electric Light was very white, except when a little iron or antimony had collected as ash between the carbons, and for a few moments gave rise to a yellowish or pale reddish tint.

On the Thursday morning an examination took place, before the Deputy Master and Committee, of the lightkeepers, and their ability to take charge of the service of the lamps. They had been under instruction and in charge since the 31st January. It was soon evident that the lamp could not fairly be left to them. A certain amount of intelligence is required, and of willingness. Further, the present regulations as to authority, responsibility, &c., were adverse to a good result. I was very glad when the Deputy Master and Committee concluded that the care of the Electric Light ought to be made exceptional for the present; that two intelligent young men should be appointed keepers; that they, with the engineers, should be fully instructed; that after a certain time, when declared competent, they should be examined; and if found competent, the light should then be re-opened, with the engineer as chief keeper; the lighthouse service being in the meantime sustained by the use of the oil lamps and reflectors.

(signed) *M. Faraday.*

No. 10.

Royal Institution, 19th May 1862.

On the 21st February last I sent you a report on the state of the Magneto-electric Light at Dungeness; and referring to the requisite care and intelligence of the keepers, expressed my gladness "when the Deputy Master and Committee concluded that this case of the Electrical Light ought to be made exceptional for the present; that two intelligent young men should be appointed keepers; that they with the engineers should be fully instructed; that after a certain time, when declared competent, they should be examined; and if found competent, the light should then be re-opened with the engineer as chief keeper," &c.

Two such keepers, named Binney and Chaplin, have been appointed, instructed, and exercised; and on the 12th and 13th instant I was at the lighthouse (the Deputy Master and Committee, and also Professor Holmes and Mr. James Chance, being present) and examined these keepers both by word of mouth and practice with the light. I am of opinion that they, with the engineer, are competent to take charge of the light; and therefore, according to the intention above expressed the Electric Light may be re-opened whenever the Deputy Master and brethren may think fit; and so the real evidence respecting manageability, power of light, constancy of action, fitness for duty, permanency, peculiar advantages, and expense, may be obtained by continued and public use under the observation of the maritime world.

The steam boilers have been jacketted, the machine room with its ceiling put into excellent order. Certain alterations in the lantern respecting the course of the stove pipe and a shelter from the rain and dust entering in by the cowl have not yet been made, but should be done by or before winter.*

I noticed in the former report that the prisms of the optic apparatus do not intercept all the light that proceeds generally towards them, and said that in an apparatus so new and original as this I was prepared to accept them for the present case, but that in future apparatus this escape should be provided against; that is my opinion still. These apparatus, which are of the sixth order, were constructed according to the modes and practices derived from the use of the oil lamp, for no other practice had then been obtained.

In reference to a new optic apparatus Mr. Chance and I think there should be many changes in size, arrangement, adjustment, &c.; but we reserve all these points for longer and future consideration, aided by the instruction that will arise from the results of experience. We believe that the present apparatus is abundantly sufficient to supply every proof that can be desired to establish the fitness (or the contrary) of the Magneto-electric Light for lighthouse purposes.

(signed) *M. Faraday.*

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* These alterations have been made.

No. 11.

Royal Institution, 5th July 1862.

The impurity in the carbon is well known and has not as yet been obviated. Many attempts have been made to procure a better carbon for electric lamps than that of gas retorts, but the attempt has not succeeded. Neither does inspection enable one to form a judgment, in this respect, of the character of the pieces of carbon sent for service. The globules in the carbons are of a slag, consisting of alumina and silica with a little iron, and they interfere with the character of the light; but from what I understand they ought not to occur very frequently. When they do appear they are very easily displaced by the lightkeeper, who becomes aware of them by the appearance of the light and the noise accompanying it. Their frequent occurrence is an objection which should be recorded, especially now whilst the lamps are under observation.

(signed) *M. Faraday.*

HARBOURS OF REFUGE.

RETURN to an Order of the Honourable the House of Commons, dated 29 April 1862;—*for*,

DETAILED STATEMENT "relative to HARBOURS of REFUGE; showing the Total Estimated Cost of the Works proposed; the Sums already Voted by Parliament for each Harbour; the Amount required to be Voted in the present Year ending the 31st day of March 1863; and the Sums that will be necessary for the Completion of the Works:"

"And, Copy of the REPORTS of the ENGINEERS in Charge of the Works, for the Four Quarters of the Year ending the 31st day of March 1862 (in continuation of Parliamentary Paper, No. 223, of Session 1861)."

[*N.B.*—The Papers printed for The House, No. 455 of 1850, No. 520 of 1851, No. 274 of 1852, No. 304 of 1853, No. 276 of 1854, No. 169 of 1855, No. 107 of 1856, No. 116 of Sess. (2) 1857, No. 262 of 1858, No. 84 of Sess. (2) 1859, No. 384 of Sess. 1860, and No. 223 of Sess. 1861, contain full particulars of these Harbours up to 31 March 1861.]

Ordered, by The House of Commons, *to be Printed*, 29 *April* 1862.

ACCOUNT showing Total Estimated Cost of the Works; Sums already Voted; Sums Estimated for the Year 1862–3, and Balance necessary for Completion.

HARBOURS.	Total Estimate.	Total Amount of Votes.	Vote required for 1862–3.	Subsequent Votes required to complete the Works.	Reports of Engineers.
	£.	£.	£.	£.	Pages
1. Dover - -	650,000	499,000*	50,000	101,000	2 to 5
2. Alderney - -	1,300,000	937,000*	90,000	273,000	6 to 9
3. Portland - -	1,047,125	973,000*	10,000	64,125	10 to 13

* The estimated expenditure for the three harbours for the year 1861–2 was 193,000*l.*, viz. 50,000*l.*, 90,000*l.* and 53,000*l.* respectively; but in consequence of there being available balances from former Grants, an aggregate Vote was taken of 160,000*l.* instead of 193,000*l.*; and in the above Statement the reduction has been distributed in proportion to the expenditure required for each harbour, the Grants being taken at 40,000*l.*, 75,000*l.*, and 45,000*l.*, respectively.

Whitehall, Treasury Chambers, 29 April 1862.

F. PEEL.

Dover.

1.—DOVER.

ENGINEERS' REPORT for the Quarter ending 30th June 1861.

Sir, 23, Great George-street, 5 July 1861.

THE staging for the Pier at Dover has been extended 150 lineal feet, and the foundation courses 50 feet during the quarter last past; the total length founded is now 1,479 feet; of this the masonry for 97 lineal feet has been raised from 11 feet below to 5 feet above the low water of spring tides during the past quarter.

One thousand one hundred and ten tons of dressed granite have been delivered upon the works, and 5,250 cubic yards of concrete blocks have been made at Rye.

The sea wall for the Junction Railway between the Pier and the South Eastern Railway station is nearly completed.

The average number of men employed during the past quarter has been 219, viz., 164 at Dover, and 55 at Rye.

Certificates amounting to 13,500*l.* have been granted to Messrs. Lee, the contractors, during the quarter; making the total sum certified for the first and second contracts and the junction wall, 443,597 *l.*

We have, &c.
(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 30th June 1861.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily							
							Superintendents and Foremen.	Masons and Labourers.	Millwrights.	Carpenters.	Smiths.	Sawyers.	Timekeeper and Watchmen.	Labourers.
			£.	£.	£.	£.								
Breakwater from Cheeseman's Head, 1,800 feet long.	- First contract, Oct. 1847. Second contract, Nov. 1854.	- First contract, Oct. 1854. -Second contract, Nov. 1864.	650,000	50,000	13,500	443,597	4	42	2	7	4	2	3	100

23, Great George-street, 5 July 1861. (signed) *Walker, Burges, & Coop*

Dover.

ENGINEERS' REPORT for the Quarter ending 30th September 1861.

Sir, 23, Great George-street, 7 October 1861.

THE foundation of the pier has been extended 65 feet during the past quarter, and 100 lineal feet of the masonry below low water have been raised an average height of 12 feet.

A further length of 96 feet of the masonry has been raised from 5 feet above low water to the under side of the coping.

The total length of the pier founded is now 1,544 feet, and the length at the quay level, 1,390 feet.

Two thousand one hundred tons of dressed granite have been delivered on the work, and 3,678 yards of concrete blocks have been made at Rye.

A crane has been erected on the West Landing Jetty for the use of the mail and other packets in easterly winds; and the pier rails have been connected with those at the South Eastern Railway Station, so that the trains can now be brought on to the pier, as far as the landing jetties.

The average number of men that have been employed during the past quarter is 201, viz., 153 at Dover, and 48 at Rye.

Certificates amounting to 13,580 *l.* have been granted to Messrs. Lee & Son, the contractors, during the past quarter, making the total sum certified for the first and second contracts, and the junction wall, 457,177 *l.*

We have, &c.
(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 30th September 1861.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily.								
							Superintendents and Foremen.	Masons and Divers.	Millwrights.	Carpenters.	Smiths.	Sawyers.	Timekeepers and Watchmen.	Labourers.	Blockmakers at Rye.
			£.	£.	£.	£.									
akwater from heeseman's Head, 800 feet long.	- First contract, Oct. 1847. Second contract, Nov. 1854.	- First contract, Oct. 1854. Second contract, Nov. 1864.	650,000	50,000	13,580	457,177	4	40	2	5	4	2	3	93	48

23, Great George-street, 7 October 1861. (signed) *Walker, Burges, & Cooper.*

Dover.

ENGINEERS' REPORT for the Quarter ending 31st December 1861.

Sir, 23, Great George-street, 4 January 1862.

THE foundations of the pier have been extended 29 feet, and 147 lineal feet of masonry under water have been raised to an average height of 19 feet during the past quarter.

The total length of the pier founded is now 1,573 feet, and the length completed to the quay level is 1,390 feet.

One thousand six hundred tons of granite have been delivered on to the works, and 2,900 cubic yards of concrete blocks have been made at Rye.

The average number of men employed upon the works during the past quarter has been 173, viz., 124 at Dover, and 49 at Rye.

Certificates amounting to 11,000 *l.* have been granted to Messrs. Lee, the contractors, during the past quarter, making the total sum certified for the first and second contracts, and for the junction wall, 468,177 *l.*

Summary for the Year.

The foundations of the pier have been extended 147 feet, and the masonry at the level of the quay 97 feet, during the year 1861.

We have, &c.
(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 31st December 1861.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed D							
							Superintendents and Foremen.	Masons and Divers.	Millwrights.	Carpenters.	Smiths.	Sawyers.	Timekeepers and Watchmen.	Labourers.
			£.	£.	£.	£.								
Breakwater from Cheeseman's Head, 1,800 feet long.	- First contract, Oct. 1847. Second contract, Nov. 1854.	- First contract, Oct. 1854. - Second contract, Nov. 1864.	650,000	50,000	11,000	468,177	4	32	2	5	4	2	3	7

23, Great George-street, 4 January 1862. (signed) *Walker, Burges, & C*

Dover.

ENGINEERS' REPORT for the Quarter ending 31st March 1862.

Sir, 23, Great George-street, 2 April 1862.

No advance has been made with the foundation course of the pier during the past quarter; the total length founded is 1,573 feet, and the length completed to the quay level is 1,390 feet.

One hundred and forty-seven lineal feet of the masonry have been raised from 23 feet to within 11 feet of low water.

One thousand five hundred tons of dressed granite have during the quarter been delivered upon the works; 4,000 cubic yards of concrete blocks have been made at Rye, all of which are in store.

The average number of men employed during the past quarter has been 190, viz., 137 at Dover, and 53 at Rye.

The trains of the South Eastern Railway Company now use the pier daily, conveying passengers and mails to and from the Continent.

Certificates amounting to 16,000 *l.* have been granted to Messrs. Lee & Son, the contractors, during the quarter, making the total sum certified for the first and second contracts, and for the junction wall, 484,177 *l.*

We have, &c.

(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 31st March 1862.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily.								
							Superintendents and Foremen.	Masons and Divers.	Millwrights.	Carpenters.	Smiths.	Sawyers.	Timekeepers and Watchmen.	Labourers.	Block-makers at Rye.
			£.	£.	£.	£.									
Breakwater from Cheeseman's Head, 1,800 feet long.	- First contract, Oct. 1847. Second contract, Nov. 1854.	- First contract, Oct. 1854. - Second contract, Nov. 1864.	650,000	50,000	16,000	484,177	4	35	2	6	5	2	3	81	53

23, Great George-street, 2 April 1862.

(signed) *Walker, Burges, & Cooper.*

Alderney.

2.—ALDERNEY.

ENGINEERS' REPORT for the Quarter ending 30th June 1861.

Sir, 23, Great George-street, 5 July 1861.

A COMMENCEMENT for the season was made with the foundation of the walls of the Western Breakwater on the 26th April, since which time 130 lineal yards of staging have been erected beyond the end of last season's work.

The sea wall has been founded 97 yards in length; of this, 65 yards are raised four feet above high water, 22 yards to high water, and 10 yards to three feet above low water of spring tides. The foundation of the harbour wall has been extended 97 yards during the past quarter; of this, 65 yards have been raised to the level of the coping, 22 yards to high water, and the remainder to three feet above low water of spring tides.

The hearting between the sea and harbour walls has been extended along with the walls, and for 65 yards in length is raised four feet above high water.

In addition to the stone used in the works above described, 62,000 tons have been deposited in the base of the breakwater during the past quarter; of this, 800 tons have been quarried and taken to the base from sunken rocks in the harbour.

A beacon of brickwork has been commenced on the small Aiguillon Rock, to mark the eastern limit of the fareway into the harbour.

The daily average number of workmen employed has been 680 during the quarter; and 45 horses.

The amount of certificates granted to Messrs. Jackson & Bean, the contractors, during the quarter, has been 16,500 *l.*, making a total of 781,054 *l.* since the commencement of the works.

We have, &c.

(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 30th June 1861.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily.							
							Clerks, Foremen, &c.	Carpenters, Sawyers and Labourers.	Masons and Labourers.	Smiths and Labourers.	Engineers and Mechanics.	Platelayers.	Quarrymen and Labourers.	Tipmen and Boatmen.
			£.	£.	£.	£.								
Breakwaters from Grosnez and Château à l'Etoc Points, purchase of land, forming railways, opening quarries, and depositing stone.	June 1847	- -	1,300,000	90,000	16,500	781,054	30	41	217	44	18	13	301	16

28, Great George-street, 5 July 1861. (signed) *Walker, Burges, & Cooper.*

ENGINEERS' REPORT for the Quarter ending 30th September 1861.

Sir, 23, Great George-street, 7 October 1861.

THE foundation of the walls of the Western Breakwater has been extended 62 yards during the past quarter, the extreme outer end being now 1,231 yards, or 89 yards less than three-fourths of a mile from the shore.

The total length of sea and harbour walls which have been founded this season is 159 yards; of this, 111 yards of sea wall have been raised to the level of 13 feet, and the remaining 48 yards to the level of four feet above high water. For the whole of the above length of 159 yards the harbour wall has been raised to four feet above high water, the level for the coping.

The hearting between the sea and harbour walls, for the same length as these walls, is ready for the pitching.

The promenade wall has been carried forward 96 yards, and is raised to the level of four feet above the plinth.

In addition to the stone that has been used in the works above described, 71,000 tons have been deposited during the past quarter to form the base and foreshores of the breakwater.

Three gangs of miners have been employed during the quarter in blasting sunken rocks in the harbour.

The average number of men employed during the quarter has been 695, and 46 horses.

The amount of certificates granted to Messrs. Jackson & Bean, the contractors, during the quarter, has been 30,000 *l.*, making a total of 811,054 *l.* since the commencement of the works.

We have, &c.
(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 30th September 1861.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily.								Horses.
							Clerks, Foremen, &c.	Carpenters, Sawyers, and Labourers.	Masons and Labourers.	Smiths and Labourers.	Enginemen and Mechanics.	Platelayers.	Quarrymen and Labourers.	Tipmen and Boatmen.	
			£.	£.	£.	£.									
Breakwaters from Grosnez and Château à l'Etoc Points, purchase of land, forming railways, opening quarries, and depositing stone.	June 1847	- -	1,300,000	90,000	30,000	811,054	30	41	234	40	19	13	299	19	46

23, Great George-street, 7 October 1861. (signed) *Walker, Burges, & Cooper.*

Alderney.

ENGINEERS' REPORT for the Quarter ending 31st December 1861.

Sir, 23, Great George-street, 4 January 1862.

THE sea and harbour walls of the Western Breakwater have not been extended further eastward since our last report, their outer ends remain 1,231 yards from the shore; 159 yards of sea wall have been raised to the level of 21 feet above high water; altogether, 1,220 yards of sea wall and 1,226 yards of harbour wall are complete except the coping.

One hundred and sixty-three yards of promenade wall have been raised during the past quarter to the level of the coping. The total length of promenade wall ready for the coping is 1,217 yards.

The base of the Western Breakwater has not been extended seawards during the quarter; the outer end is 405 yards eastward of the walls.

The total quantity of stone deposited in the Western Breakwater during the quarter has been 55,000 tons.

Three gangs of miners have been employed in blasting sunken rocks in the harbour; 450 tons of rock have been taken up from the bottom during the quarter and deposited in the base of the breakwater.

The daily average number of men employed during the quarter has been 575, and 44 horses.

The amount of certificates granted to Messrs. Jackson & Bean, the contractors, during the quarter has been 12,500 *l.*, making a total of 823,554 *l.* since the commencement of the works.

Summary for the Year.

Since the beginning of the year the walls have been advanced on the average 159 yards, and the base 36 yards; 246,000 tons of rubble stone have been deposited in the base and foreshores.

We have, &c.

(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 31st December 1861.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount of Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily.								
							Clerks, Foremen, &c.	Carpenters and Labourers.	Masons and Labourers.	Smiths and Labourers.	Enginemen and Mechanics.	Platelayers.	Tipmen and Boatmen.	Quarrymen and Labourers.	Horses.
			£.	£.	£.	£.									
Breakwaters from Grosnez and Château à l'Etoc Points, purchase of land, forming railways, opening quarries, and depositing stone.	June 1847	- -	1,300,000	90,000	12,500	823,554	29	37	200	39	19	11	15	225	44

23, Great George-street, 4 January 1862.

(signed) *Walker, Burges, & Cooper.*

ENGINEERS' REPORT for the Quarter ending 31st March 1862. Alderney.

Sir, 23, Great George-street, 2 April 1862.

SINCE our last Report the sea and harbour walls of the Western Breakwater have not been extended further eastward, the outer ends remain 1,231 yards from the shore; altogether 1,220 yards of sea wall, and 1,226 yards of harbour wall are complete, except the coping.

The promenade wall is ready for the coping for a length of 1,217 yards from the shore.

The base of the Western Breakwater below low water has not been extended seaward. The outer end remains 405 yards eastward of the walls, or 1,636 yards from the shore.

The total quantity of stone deposited in the base below low water, has been 43,000 tons.

The quantity of materials prepared and delivered ready for building the walls in future seasons is 60,000 cubic feet of granite, 408,000 cubic feet of Mannez face stone, and 10,400 cubic yards of concrete blocks.

The daily average number of men employed during the quarter has been 531, and 44 horses.

The amount of certificates granted to Messrs. Jackson & Bean, the contractors, during the quarter, has been 10,500 *l.*, making a total of 834,054 *l.* since the commencement of the works.

We have, &c.
(signed) *Walker, Burges, & Cooper.*

The Secretary to the Admiralty.

RETURN of EXPENSES and Average Number of MEN EMPLOYED DAILY during the Quarter ending 31 March 1862.

DESCRIPTION of WORK.	Date when the Work was Commenced.	Date when the Work should be Completed.	Amount Estimate.	Amount authorised for Year.	Amount certified during Quarter.	Amount certified from Commencement, including present Quarter.	Average Number of Men Employed Daily.								
							Clerks, Foremen, &c.	Carpenters and Labourers.	Masons and Labourers.	Smiths and Labourers.	Engineers and Mechanics.	Platelayers.	Labourers.	Tipmen and Boatmen.	Horses.
			£.	£.	£.	£.									
waters from Grosnez Château à l'Etoc nts, purchase of l, forming railways, ning quarries, and positing stone.	June 1847 -	- - -	1,300,000	90,000	10,500	834,054	29	35	154	36	20	11	232	14	44

3, Great George-street, 2 April 1862. (signed) *Walker, Burges, & Cooper.*

3.—HARBOUR OF REFUGE AND

STATEMENT of Expenditure and Number of Men Employed

DESCRIPTION of WORK.	Date of Commencing the Work.	Date when the Work should be Completed.	Amount of Estimate.	Amount Authorised for the Year.
Quarter ending 30th June 1861:			£.	£.
The formation of an inner and outer Breakwater, which, according to the extended Plan, will shelter about 2,360 acres of Portland Bay; with adjunct works.	- - Railways and preliminary works commenced 11th August 1847. Breakwater commenced 11th December 1849.	- - Time dependent upon the application of convict labour.	Estimate of 1857 - 932,125 Extension sanctioned in 1860 - 115,000 £. 1,047,125	53,000
Quarter ending 30th September 1861:				
The formation of an inner and outer Breakwater, which, according to the extended Plan, will shelter about 2,160 acres of Portland Bay, with adjunct works.	- - Railways and preliminary works commenced 11th August 1847. Breakwater commenced 11th December 1849.	December 1865 -	- 1,007,000 *l.* for breakwater, terminating at 8,500 feet from the shore.	53,000

REAKWATER AT PORTLAND.

r the Four Quarters of the Year ending 31st March 1862.

Amount Expended during the Quarter.	Amount Expended from Commencement, including the present Quarter.	Average Number of Workmen, &c. Employed.	REMARKS.
£.	£.	No.	
tract works - 11,900 eral disburse- ents and ad- inct works - 954	Contract works, Convict Department, land, stock and plant, and miscellaneous disbursements - - 962,857 Less proportionate cost of works for War Department, to 30th June 1861 33,877	Foremen - - 10 Weighers - - 4 Brakesmen - 30 Quarrymen - – Masons and Stone-cutters - - 28 Sawyers - - 8 Carpenters - 21 Smiths - - 12 Fitters, Engine-drivers, &c. - 24 Divers - - 1 Boatmen - - 8 Platelayers - 9 Labourers, &c. - 143 298 Horses - - 32 Convicts in Quarries - - 421 Convicts in Fortification Ditches and Glacis - 519 940	- - During the past quarter, 86,040 tons of rough stone have been deposited in the Outer or great Breakwater; of this quantity 80,877 tons have been sent from the Fortification Ditches, the excavations for which are now approaching completion, and 5,163 tons have been supplied from the Breakwater Quarries. The whole quantity has been excavated and loaded by Convict Labour. By the deposit of this quantity of stone, 1,719,000 cubic feet have been added to the Breakwater, and the staging has been advanced 197 feet to the Northward. The Outer end of the Breakwater staging is now 8,322 feet from the shore, and the depth of water 9 fathoms at low water of spring tides. The hydraulic apparatus in connexion with the coaling arrangements, has been completed for some time, with the exception of the hauling gear, which Messrs. Armstrong & Co. are now altering so as to fulfil the required conditions. The additional masonry for the Fort at the head of the Inner Breakwater has been finished; if considered desirable, the guns may be mounted forthwith. The roach stone for the North Head is dressed as it is supplied from the Quarries; and the foundation courses and granite are in course of delivery.
OTAL for the Quarter - 12,854	NET EXPENDITURE for Harbour Works - 928,980		
itract works - 12,700 ieral disburse- ients and ad- inct works - 927	Contract works, Convict Department, land, stock and plant, and miscellaneous disbursements - - 976,484 Less proportionate cost of works for War Department to 30th September 1861 - 33,907	Foremen - - 9 Weighers - - 4 Brakesmen - 28 Quarrymen - – Masons and Stone-cutters - - 30 Sawyers - - 5 Carpenters - 21 Smiths - - 11 Fitters, Engine-drivers, &c. - 22 Divers - - 1 Boatmen - - 8 Platelayers - 8 Labourers, &c. - 131 278 Horses - - 28 Convicts in Quarries - - 379 Convicts in Fortification Ditches and Glacis - 434 813	- - The total quantity of stone deposited in the Breakwater during the past quarter has been 1,232,426 cubic feet, or 61,683 tons, of which 56,683 tons have been excavated from the Verne Ditches and Glacis, and 5,000 tons from the Breakwater Quarries; the whole of this quantity has been raised and loaded by Convict Labour. The supply of stone to the Breakwater from the Fortification Ditches ceased on the 20th September. The Breakwater stage has now been completed up to the site of the North or Outer Head, the centre of which is 8,500 feet from the shore; the construction of the circular stage for the execution of the masonry of this head, and the deposits for the same, are now in progress. The hydraulic apparatus in connexion with the coaling arrangements (including the hauling gear) is now complete, and ready for use as soon as the moorings may be laid down opposite the jetty. The rough rubble now supplied to the Breakwater is procured from the excavations necessary to form the Glacis of the South-east Ditch of the Fort.
OTAL for the Quarter - 13,627	NET EXPENDITURE for Harbour Works - 942,577		

(continued)

PORTLAND HARBOUR AND BREAKWATER—*continued.* - - - - -

DESCRIPTION of WORK.	Date of Commencing the Work.	Date when the Work should be Completed.	Amount of Estimate.	Amount Authorised for the Year.
Quarter ending 31st December 1861:				£.
The formation of an inner and outer Breakwater, which, according to the extended Plan, will shelter about 2,160 acres of Portland Bay, with adjunct works.	- - Railways and preliminary works commenced 11th August 1847. Breakwater commenced 11th December 1849.	December 1865 -	- 1,007,000 *l.* for breakwater, terminating at 8,500 feet from shore.	53,000
Quarter ending 31st March 1862:				
The formation of an inner and outer Breakwater, which, according to the final Plan, will shelter 2,130 acres of Portland Bay, with adjunct works.	- - Railways and preliminary works commenced 11th August 1847. Breakwater commenced 11th December 1849.	December 1865 -	- 1,007,000 *l.* for breakwater, terminating at 8,500 feet from shore, and circular head.	53,000

Portland, April 1862.

- - - - PORTLAND HARBOUR AND BREAKWATER—*continued.*

Amount Expended during the Quarter.	Amount Expended from Commencement, including the present Quarter.	Average Number of Workmen, &c. Employed.	REMARKS.
£.	£.	No.	
ract works - 9,700	Contract works, Convict Department, land, stock and plant, and miscellaneous disbursements - 987,156	Foremen - - 7 Weighers - - 4 Brakesmen - 27 Quarrymen - -	- - The total quantity of stone deposited during the past quarter amounts to 41,852 tons, including 6,024 tons of foundation deposits for the North Head and Fort; 35,828 tons have been appropriated in raising the level of the rubble mound on the outer portion of the Breakwater previously kept below the full section, thus forming an addition to the work of 715,843 cubic feet. The total quantity of stone deposited in the Breakwater since the commencement is 4,976,283 tons.
eral disbursements and addnct works - 972		Masons and Stonecutters - - 21 Sawyers - - 6 Carpenters - 21 Smiths - - 14 Fitters, Enginedrivers, &c. - 21	
OTAL for the Quarter - 10,672	Less, proportionate cost of works for War Department to 31 Dec. 1861 - 35,274	Divers - - 2 Boatmen - - 8 Platelayers - 6 Labourers, &c. - 111	Of the stone deposited within the quarter, 33,313 tons have been sent from the Glacis in front of the South-east Ditch of the Verne Fort, and the remainder (8,539 tons) from the Breakwater Quarries; the whole has been quarried and loaded by Convict labour.
	NET EXPENDITURE for Harbour Works - 951,882	248	The circular staging has been completed over and around the area to be occupied by the North Head and Fort, and the foundation deposits have been commenced under the site of the masonry.
		Horses - - 19	
		Convicts in Quarries - - 412 Convicts at Glacis in front of South-east Ditch - 262	
		674	
		No.	
tract works - 6,900	Contract works, Convict Department, land, stock, plant, and miscellaneous disbursements, including portion of expenditure to be borne by the War Department - 1,000,634	Foremen - - 7 Weighers - - 4 Brakesmen - 28 Quarrymen - —	- - The total quantity of stone deposited during the past quarter amounts to 43,841 tons, of which quantity 24,829 tons have been appropriated in the mound forming the substructure for the North Head and Fort, and 19,012 tons in raising the rubble mound along the outer portion of the Breakwater previously kept below the full section, thus forming an addition to the work of 875,943 cubic feet. The total quantity of rough stone deposited since the commencement of the work is 5,020,124 tons.
eral disbursements and addnct works - 1,813		Masons and Stonecutters - - 23 Sawyers - - 2 Carpenters - 13 Smiths - - 11 Fitters, Enginedrivers, &c. - 22	
OTAL for the Quarter - 8,713	Less, proportionate cost of works for War Department to 31 Mar. 1862 - 44,164	Divers - - — Boatmen - - 4 Platelayers - 6 Labourers, &c. - 78	Of the stone deposited within the quarter, 30,672 tons have been sent from the Glacis in front of the South-east Ditch of the Verne Fort, and the remainder (13,169 tons) from the Breakwater Quarries.
	NET EXPENDITURE for Harbour Works - 956,470	198	The centre of the North Head of the Breakwater is 8,512 feet from the shore, and the depth of water 9½ fathoms at low water of spring tides.
		Horses - - 18	During the heavy gales in February and March many vessels have taken refuge within the Harbour, including a number of large size, varying from 600 to 1,200 tons; from 110 to 120 vessels remained in the harbour for some days.
		Convicts in Quarries - - 404 Convicts at Glacis front of South Ditch - - 210	As usual at the end of the March quarter, a Chart is appended hereto, showing the extent of the Breakwater.
		614	

(signed) *Jno. Coode*, Engineer in Chief.

CHART
OF
PORTLAND & WEYMOUTH
BAY
SHEWING THE NEW HARBOUR

JOHN COODE, *Engineer in Chief.*

NOTE.

Latitude, 50° 34′ 00″ North
Longitude, 2° 25′ 30″ West

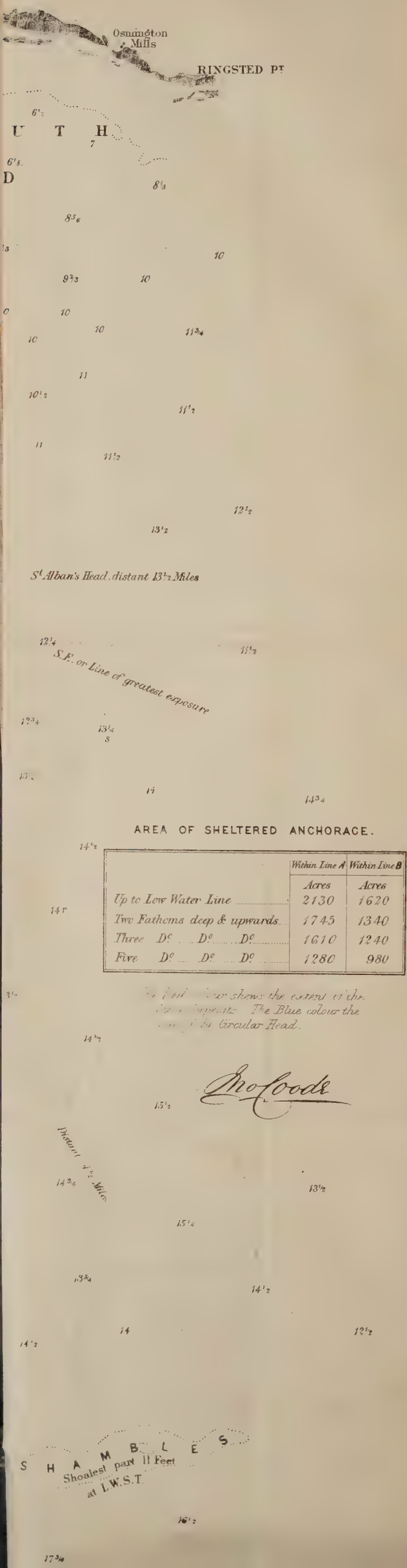
The Soundings are in Fathoms under Low Water of Spring Tides.

Line of Two Fathoms depth shewn thus . . . . .
" *Three* " " " ....
" *Five* " " " ....

One Nautic Mile
0 ¼ ½ ¾ 1 Mile

Scale of Feet
1000 0 5,000 10,000 Feet

RADIPOLE
REDCLIFF PT
WEYMOUTH
WYKE REGIS
Belfield
SANDFOOT CASTLE
PORTLAND
HARBOUR
WEST BAY
PORTLAND CASTLE
Kings Pier
Folly Pier
CONVICT PRISON
PORTLAND CHURCH
Lighthouses
PORTLAND BILL
BREAKWATER
Pier Light Mixon
Bridge
Low Water Line
Distant 2¾ Miles
Distant 1¼ Miles



AREA OF SHELTERED ANCHORAGE.

	Within Line A	Within Line B
	Acres	Acres
Up to Low Water Line	2130	1620
Two Fathoms deep & upwards	1745	1340
Three Do Do Do	1610	1240
Five Do Do Do	1280	980

The Red colour shows the extent of the Anchorage. The Blue colour the Area in Circular Head.

Jno Coode

HARBOURS AND PASSING TOLLS, &c. ACT.

RETURN to an Order of the Honourable The House of Commons, dated 22 July 1862;—*for*,

A COPY "of the LISTS received by the Board of Trade from the several CHARITABLE CORPORATIONS named in the FIRST SCHEDULE to 'The HARBOURS and PASSING TOLLS, &c. ACT, 1861,' of all PENSIONS to be paid by them which have been Granted, or in which a Vested Interest has been created, before the 15th day of March 1861."

Board of Trade,
July 23, 1862.

EDGAR A. BOWRING,
Registrar.

(*Mr. Milner Gibson.*)

Ordered, by The House of Commons, *to be Printed*,
25 *July* 1862.

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COPY of the LISTS received by the Board of Trade from the several CHARITABLE CORPORATIONS named in the FIRST SCHEDULE to the HARBOURS and PASSING TOLLS, &c., ACT, 1861, of all PENSIONS to be paid by them which have been Granted, or in which a Vested Interest has been created, before the 15th day of March 1861.

TRINITY HOUSE OF KINGSTON-UPON-HULL.

Sir, Trinity House, Hull, 30th December 1861.

IN accordance with the request contained in your letter of the 7th August last, and in compliance with the provisions of the Harbours Act, I beg to enclose a list of all pensions to be paid by this Corporation which had been granted, or in which a vested interest had been created before the 15th day of March last.

I also enclose a copy of that portion of the Governing Charter of the Corporation under which the pensions are granted and the interests created, together with the pension rules in force on the 15th March last.

I shall feel obliged if you will acknowledge their receipt.

And have, &c.,
(signed) *Edw. S. Wilson*, Secretary.

T. H. Farrer, Esq., Secretary,
Marine Department, Board of Trade,
Whitehall, London.

LIST of all PENSIONS to be paid by the Corporation of the Guild or Brotherhood of Masters and Pilots, Seamen of the Trinity House, in *Kingston-upon-Hull*, which have been granted, or in which a Vested Interest has been created, before the 15th day of March 1861.

[*Note.*—Each seaman and seaman's widow of the age of 70 years and upwards who is an out-pensioner is in the receipt of an additional pension of 2*s.* 6*d.* per week, and the rest of the out-pensioners will be entitled thereto on attaining that age. See Rule 41 of the accompanying Pension Rules.

The seamen out-pensioners marked thus (*) have each an additional pension of 1*s.* 6*d.* per week, under Rule 40.]

IN-PENSIONS, WEEKLY.—MEN AND THEIR WIVES.

NAME of PENSIONER.	Man's Age.	Woman's Age.	Amount of Pension per Week. £. s. d.	Contingent Weekly Pension to Survivor. £. s. d.	NAME of PENSIONER.	Man's Age.	Woman's Age.	Amount of Pension per Week. £. s. d.	Contingent Weekly Pension to Survivor. £. s. d.
Ansell, John	68	61	– 9 –	– 6 –	Johnson, Bruce	84	73	– 9 –	– 6 –
Broadhead, John	65	65	– 15 –	– 11 –	Ingram, William	69	67	– 9 –	– 6 –
Best, Henry	69	64	– 12 –	– 9 –	Ion, Christopher	71	69	– 9 –	– 6 –
Bradley, George	70	70	– 9 –	– 6 –	Lindsay, Isaac	69	51	– 9 –	– 6 –
Bird, George	75	66	– 9 –	– 6 –	Lamb, William	76	66	– 9 –	– 6 –
Bailey, William	72	63	– 9 –	– 6 –	Lowery, Thomas	74	72	– 9 –	– 6 –
Beadling, Richard	69	69	– 9 –	– 6 –	Laycock, William	66	61	– 9 –	– 6 –
Banks, Joseph	74	73	– 9 –	– 6 –	Lee, John	65	64	– 9 –	– 6 –
Barlow, John	74	65	– 9 –	– 6 –	M'Intosh, James	75	72	– 12 –	– 9 –
Clutterbuck, Edmd.	64	59	– 12 –	– 9 –	Mask, William	73	71	– 9 –	– 6 –
Coulby, Benjamin	68	66	– 9 –	– 6 –	Moxon, Joseph	68	69	– 9 –	– 6 –
Clough, Thomas	67	64	– 9 –	– 6 –	Mason, John	70	64	– 9 –	– 6 –
Cottam, Joseph	77	76	– 9 –	– 6 –	Mosely, George	74	63	– 9 –	– 6 –
Clark, John	70	59	– 9 –	– 6 –	Nicholson, John	72	65	– 9 –	– 6 –
Coates, John	66	60	– 9 –	– 6 –	Owen, James	86	59	– 15 –	– 11 –
Duckles, Richd. S.	65	64	– 12 –	– 9 –	Potts, Edward	71	63	– 9 –	– 6 –
Darnbrook, Richard	78	69	– 9 –	– 6 –	Poskitt, Mark	80	76	– 9 –	– 6 –
Dails, Matthew	68	60	– 9 –	– 6 –	Priestly, Anthony	70	67	– 9 –	– 6 –
Eratt, James	70	69	– 15 –	– 11 –	Rowan, Alexander	64	63	– 12 –	– 9 –
Edwards, Edward	71	74	– 9 –	– 6 –	Russell, William	67	59	– 9 –	– 6 –
Eddington, John	67	66	– 9 –	– 6 –	Redpath, James	66	66	– 9 –	– 6 –
Finningley, Thomas	78	66	– 12 –	– 9 –	Rupple, Frederick	68	72	– 9 –	– 6 –
Findlay, William	70	68	– 12 –	– 9 –	Rawlins, James W.	70	62	– 9 –	– 6 –
Farr, George	83	82	– 9 –	– 6 –	Siddle, John	71	67	– 9 –	– 6 –
Foster, Joseph	69	75	– 9 –	– 6 –	Thompson, George	71	67	– 12 –	– 9 –
Hepton, Stephenson	68	65	– 9 –	– 6 –	Thew, Thomas	76	87	– 9 –	– 6 –
Hay, Isaac	73	69	– 9 –	– 6 –	Taylor, David	81	79	– 9 –	– 6 –
Harrison, William	67	58	– 9 –	– 6 –	Wilman, James	69	63	– 12 –	– 9 –
Hopwood, John	69	64	– 9 –	– 6 –	Wear, George	67	58	– 15 –	– 11 –
Hordon, William	68	68	– 9 –	– 6 –	Ward, Samuel	65	62	– 15 –	– 11 –
Holmes, Lot	80	76	– 9 –	– 6 –	Wood, Jonathan	73	70	– 9 –	– 6 –
Jackson, Josh. S.	62	57	– 12 –	– 9 –	Ward, Benjamin	71	70	– 9 –	– 6 –
Jeffery, John	75	77	– 9 –	– 6 –	Wilks, David	71	58	– 9 –	– 6 –
Jameson, William	70	68	– 9 –	– 6 –	Walker, James	73	72	– 9 –	– 6 –

Trinity House of Kingston-upon-Hull—continued.

In-Pensions, Weekly.—Single Men.

NAME OF PENSIONER.	Age.	Amount of Pension per Week. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Pension per Week. £. s. d.
Allen, John	73	– 6 –	Mills, John	71	– 6 –
Banks, Thomas	76	– 6 –	Marfleet, John	88	– 6 –
Brown, Andrew	69	– 6 –	Mercer, William	72	– 6 –
Bailey, Joseph S.	82	– 6 –	Massam, John	72	– 6 –
Braham, Robert	68	– 6 –	Nichols, William	78	– 6 –
Cook, Thomas	84	– 9 –	Priest, Robert	76	– 9 –
Colbridge, Nathan	72	– 6 –	Pears, John	76	– 6 –
Cammell, William	82	– 6 –	Poskitt, William	78	– 6 –
Conyers, William	80	– 6 –	Payne, Joseph	72	– 6 –
Cortis, Richard	74	– 11 –	Redmore, William	74	– 6 –
Dails, William	71	– 9 –	Robinson, John	72	– 6 –
Dean, Peter	82	– 6 –	Ross, Josiah	73	– 6 –
Donaldson, Henry	70	– 6 –	Robinson, Bethel	76	– 6 –
Dalton, William	69	– 9 –	Rufford, William B.	69	– 6 –
Eccleston, Thomas	73	– 6 –	Stamp, Thomas	75	– 6 –
Fletcher, Richard	80	– 6 –	Skow, Henry	69	– 6 –
Fairclough, William	73	– 6 –	Siddle, Thomas	77	– 6 –
Graystone, John	67	– 6 –	Spence, George	70	– 6 –
Griswood, Matthew	71	– 9 –	Swinney, John	70	– 6 –
Gill, James	67	– 9 –	Tather, William	64	– 9 –
Geeves, John	74	– 6 –	Tillier, William	73	– 6 –
Haselgrave, William	73	– 6 –	Tomlinson, Charles	74	– 6 –
Hedgecock, George	69	– 9 –	Tindall, John R.	77	– 6 –
Hall, John	66	– 6 –	Tute, Thomas	67	– 6 –
Jackson, William	68	– 9 –	Williams, James D.	72	– 6 –
Jackson, Samuel	75	– 6 –	Whitehead, John	73	– 6 –
Jackson, Joseph	76	– 6 –	Wood, Thomas	72	– 6 –
Knill, Thomas	79	– 11 –	Wray, Thomas	70	– 6 –
Lednar, Thomas J.	73	– 6 –	Webster, John	77	– 6 –
Marshall, Samuel	83	– 6 –	Wilson, John	70	– 6 –

In-Pensions, Weekly.—Widows.

NAME OF PENSIONER.	Age.	Amount of Pension per Week. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Pension per Week. £. s. d.
Widow of Anderson, John	69	– 11 –	Widow of Dring, Robert	70	– 11 –
„ Ansdell, James	72	– 11 –	„ Dixon, Thomas	69	– 9 –
„ Allen, John	68	– 9 –	„ Deheer, Johannes	69	– 6 –
„ Allison, John	67	– 9 –	„ Davis, Benjamin	68	– 6 –
„ Appleyard, John	76	– 6 –	„ Donham, James	75	– 6 –
„ Atkinson, Robert	75	– 6 –	„ Darby, Samuel	77	– 6 –
„ Appleby, George	74	– 6 –	„ Dunn, William	65	– 6 –
„ Anderson, Lewis	72	– 6 –	„ Drew, J. G.	75	– 6 –
„ Armstrong, Samuel	73	– 6 –	„ Darby, Mark	73	– 6 –
„ Atkinson, R. B.	74	– 6 –	„ Epworth, John	74	– 6 –
„ Bruce, George	60	– 11 –	„ Foster, Thomas	86	– 9 –
„ Boyle, Tommy	81	– 11 –	„ Fairburn, Robert	78	– 9 –
„ Brown, William	60	– 9 –	„ Fawcett, John	69	– 9 –
„ Berrinan, Peter	60	– 9 –	„ Fishwick, John	78	– 6 –
„ Biggins, Thomas	63	– 6 –	„ Farrah, John	68	– 6 –
„ Booth, Joseph	78	– 6 –	„ Frieston, David	76	– 6 –
„ Bower, Thomas H.	76	– 6 –	„ Fullerton, Francis	84	– 6 –
„ Bragg, George	74	– 6 –	„ Fitch, John	72	– 6 –
„ Bond, William	71	– 6 –	„ Gell, John	64	– 9 –
„ Bevers, Thomas	72	– 6 –	„ Garlick, Thomas	68	– 9 –
„ Coltman, Stephen	53	– 9 –	„ Gawthorp, James	77	– 9 –
„ Clark, George	72	– 11 –	„ Gardiner, John F.	69	– 9 –
„ Cook, William	74	– 6 –	„ Gilchrist, Thomas	75	– 6 –
„ Crawford, William	72	– 6 –	„ Gawthorp, John	84	– 6 –
„ Christie, James	77	– 6 –	„ Greenwood, William	69	– 6 –
„ Cook, Thomas	69	– 6 –	„ Gill, Herbert	78	– 6 –
„ Collins, William	73	– 6 –	„ Hay, Henry	63	– 11 –
„ Cross, John	72	– 6 –	„ Harrow, John	62	– 11 –
„ Dible, William	68	– 11 –	„ Heseltine, William	75	– 11 –
„ Dickinson, William	72	– 9 –	„ Hare, William	58	– 11 –

Tainity House of Kingston-upon-Hull—In-Pensions, Weekly.—Widows—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Week. £.	s.	d.
dow of Harrison, James	76	–	9	–
,, Harrison, John	79	–	6	–
,, Husband, Thomas	63	–	9	–
,, Hall, John	58	–	9	–
,, Holroyd, Thomas	79	–	6	–
,, Holroyd, Benjamin	77	–	6	–
,, Halerow, Christopher	75	–	6	–
,, Jones, Robert	74	–	6	–
,, Jackson, George	73	–	11	–
,, Jessup, James	73	–	6	–
,, Jackson, Simon	87	–	6	–
,, Johnson, William	73	–	6	–
,, Jackson, Robert	74	–	6	–
,, Kitchingman, Charles	67	–	9	–
,, Knight, John	78	–	9	–
,, Lawson, Francis	66	–	11	–
,, Laycock, John	54	–	11	–
,, Lowery, Samuel	72	–	6	–
,, Laverack, Robert	64	–	11	–
,, Low, William	81	–	6	–
,, Lawson, Robert	62	–	9	–
,, Loufbrough, John	74	–	6	–
,, Lilley, Joseph	72	–	6	–
,, Lowery, Samuel	65	–	6	–
,, Mercer, Matthew	71	–	9	–
,, M'Kenzie, George	64	–	11	–
,, Maulson, John	61	–	11	–
,, M'Donald, James	77	–	6	–
,, Marshall, George	72	–	6	–
,, Milling, John	74	–	6	–
,, Moore, Robert	74	–	6	–
,, Milestone, Peter	69	–	6	–
,, M'Kree, William	73	–	6	–
,, Medd, William	71	–	6	–
,, Newham, Nathaniel	70	–	11	–
,, Nicholson, John	70	–	6	–
,, Naylor, Horby	72	–	6	–
,, Nicholson, George	68	–	6	–
,, Orton, Thomas	75	–	11	–
,, Park, John	60	–	11	–
,, Pashby, William	68	–	6	–
,, Peterson, John	80	–	6	–
Widow of Reeston, James	67	–	6	–
,, Robinson, William	58	–	6	–
,, Robinson, Thomas	69	–	6	–
,, Sinclair, Charles	74	–	9	–
,, Simpson, Thomas	65	–	11	–
,, Scholes, John	85	–	11	–
,, Stewart, John	69	–	9	–
,, Strickney, Thomas	73	–	9	–
,, Southern, Joseph	69	–	9	–
,, Smithson, Thomas	61	–	9	–
,, Simpson, Thomas	83	–	9	–
,, Spring, John	72	–	9	–
,, Sutherland, William	74	–	6	–
,, Shepherd, William	73	–	6	–
,, Sherwood, Joseph	71	–	6	–
,, Stockdale, James	62	–	6	–
,, Saltmarsh, William	73	–	6	–
,, Slingsby, John	76	–	6	–
,, Tucker, William	69	–	11	–
,, Tucker, Richard	62	–	11	–
,, Turnley, William	62	–	11	–
,, Turner, John	68	–	6	–
,, Thompson, John	82	–	6	–
,, Tather, John	73	–	6	–
,, Todd, James	75	–	6	–
,, Turner, William	71	–	6	–
,, Turpin, Edward	77	–	6	–
,, Tomlinson, Thomas	76	–	6	–
,, Thompson, Stephen	68	–	6	–
,, Wokes, Thomas	71	–	11	–
,, Watson, Ralph	86	–	9	–
,, White, Thomas	65	–	9	–
,, Wood, James	67	–	9	–
,, Wright, William	71	–	6	–
,, Wilkinson, William	75	–	6	–
,, Whitaker, John	71	–	6	–
,, Williamson, David	69	–	6	–
,, Wise, John	65	–	6	–
,, Waterhouse, Vincent	69	–	6	–
,, Wilberforce, George	81	–	6	–
,, Walker, William	77	–	6	–

Out-Pensions, Quarterly.—Men with Wives.

[The Wife's Name and Age are given in the List which next follows.]

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
oleyard, Godfrey	46	–	18	–
old, David	62	1	2	–
inson, Nathan	74	–	18	–
in, John	68	1	2	–
inson, Thomas	66	1	12	–
up, John	71	–	18	–
sworth, William	71	1	18	–
twick, Nicholas	69	–	18	–
lerson, Edward	51	1	2	–
on, Mark	69	1	2	–
in, John	60	1	2	–
twick, Joseph	70	1	2	–
tin, Thomas	71	1	12	–
lerson, Francis	39	1	2	–
leby, George	60	1	12	–
sworth, John C.	72	–	18	–
leby, John	60	1	2	–
nitage, Stephen	60	1	2	–
ugh, John	60	–	18	–
Binney, William	74	1	2	–
Burton, John	61	1	2	–
Briggs, John	73	–	18	–
Banks, John	67	1	7	–
Blackburn, William	70	1	2	–
Barker, John	68	1	18	–
Barnett, Daniel	67	1	7	–
Bailey, Richard	67	1	7	–
Bullock, Harland	86	2	2	–
Bewley, Matthew	62	1	2	–
Bullock, William	67	–	18	–
Bulmer, George	67	2	2	–
Beall, William	63	–	18	–
Blyth, Richard	63	1	7	–
Best, William	63	1	18	–
Biggins, Richard	54	1	12	–
Broughton, William	68	1	18	–
Boanson, William	63	1	12	–
Bust, Thomas	61	1	18	–

Trinity House of Kingston-upon-Hull—Out Pensions, Quarterly.—Men with Wives—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.
Bell, Henry	62	1 7 –	Hardy, Joseph	63	1 12 –
Brier, William	62	1 12 –	Hardy, George	59	– 18 –
Biggins, Thomas	48	1 7 –	Hebblewhite, Samuel	62	1 12 –
Brodrick, William M.	53	1 2 –	Hawkins, William	61	1 12 –
Beadling, William	61	1 2 –	Hall, Thomas	61	1 12 –
Brewer, Henry K.	32	– 18 –	Hollingsworth, George	62	1 7 –
Barney, Charles	40	– 18 –	Hamshaw, Joseph	61	– 18 –
Carver, John	79	– 18 –	Hardy, Thomas	68	1 2 –
Clark, Thomas	48	– 18 –	Holt, Thomas	72	– 18 –
Cobb, John	67	– 18 –	Hossell, Thomas	61	1 2 –
Crew, Thomas	76	1 2 –	Jackson, Thomas	57	1 7 –
Carmichael, William	65	– 18 –	Jewitt, John	56	1 2 –
Cressey, Thomas	60	– 18 –	Johnson, John	67	1 12 –
Camplin, Edward	70	1 2 –	Jackson, Thomas	70	1 2 –
Carlisle, Joseph	70	1 18 –	Johnson, William	64	1 2 –
Cockerill, William	67	– 18 –	Jackson, Thomas	54	1 2 –
Clayburn, George	70	1 7 –	Johnson, William	64	1 7 –
Cappleman, Thomas	48	– 18 –	Jewitt, William	59	1 7 –
Carmichael, Thomas	54	1 18 –	Jackson, John	64	– 18 –
Clappison, Benjamin	66	1 7 –	Johnson, Robert	62	1 2 –
Cummins, James	57	– 18 –	Jameson, Henry	61	1 12 –
Cawthorne, William	66	1 7 –	King, Thomas	47	– 18 –
Coverdale, William	62	1 2 –	Kay, Ralph	62	– 18 –
Cawthorne, William	51	– 18 –	Knott, John	63	1 2 –
Chapman, George	63	1 2 –	King, James	60	2 8 –
Cook, William	62	1 2 –	Lyon, John	66	1 7 –
Close, John	59	– 18 –	Leedom, John	77	3 – –
Carter, Thomas	63	– 18 –	Lekey, William	67	1 7 –
Clark, William	65	1 2 –	Langfield, Richard	72	1 18 –
Crisp, John	65	1 7 –	Longthorp, Robert	63	1 2 –
Chapman, Allen	61	1 7 –	Lee, William	65	1 2 –
Cockin, John	61	– 18 –	Leggott, John	66	– 18 –
Casely, Edward	62	3 12 –	Lewsley, John	64	1 2 –
Davison, William	63	1 7 –	Lamb, William	63	1 12 –
Day, Richard	45	– 18 –	Lee, John	60	1 2 –
Dean, John	52	– 18 –	Lee, George	50	1 7 –
Dey, William	71	– 18 –	Loggin, George	61	1 12 –
Dale, William V. S.	65	1 18 –	Morton, William	56	– 18 –
Dunnell, William	71	1 18 –	Moseley, William	76	1 12 –
Dawson, William	60	1 18 –	Matthewman, Benjamin	75	1 18 –
Davis, James	57	2 2 –	Maiden, John	61	1 12 –
Davey, William	63	1 2 –	Maddison, William	56	1 2 –
Donaldson, John	62	– 18 –	Mason, Charles	69	1 2 –
Dougall, John	62	1 7 –	Mottisher, John	62	1 7 –
English, John	69	1 7 –	Megginson, Thomas	66	1 12 –
Edwards, David	54	1 18 –	Mozley, Edward	65	1 12 –
Ezart, John	57	1 2 –	Meek, Cornewell B.	60	1 7 –
Earle, George	55	– 18 –	Mitchell, George	55	1 7 –
Ellis, John	64	1 7 –	Moloney, Timothy	62	3 12 –
Etherington, William	62	1 12 –	M'Leod, Benjamin	63	1 2 –
Edwards, Robert	60	1 7 –	Mackerill, Josiah	62	1 7 –
Furniss, William	65	1 2 –	Miles, Robert	62	1 7 –
Fox, Edward	72	– 18 –	Martin, George	63	– 18 –
Fishcroft, Thomas	64	1 18 –	Morris, James	61	– 18 –
Foy, William	65	1 12 –	Newton, William	63	– 18 –
Fisher, Robert	66	1 7 –	Nicholson, Lancelot	66	1 7 –
Fish, Joseph	66	1 18 –	Osburne, Thomas	79	1 2 –
Gray, William	67	1 7 –	Owbridge, David	65	1 18 –
Griffin, William S.	64	– 18 –	Parkinson, Joseph	66	– 18 –
Goodhall, William	55	– 18 –	Pratt, Thomas	54	– 18 –
Gray, Samuel	62	1 12 –	Peaker, Thomas	67	1 2 –
Giles, George	60	1 2 –	Peck, John	60	1 2 –
*Hutchinson, Edward	74	2 2 –	Predgen, William	64	– 18 –
Hodgson, Samuel	57	– 18 –	Pepper, George	50	1 2 –
Harrison, William	62	1 12 –	Postill, Stephen	43	– 18 –
Hall, George	70	– 18 –	Palmer, John	80	1 2 –
Horn, James	60	1 2 –	Pettinger, Richard	72	1 7 –
Hinchliffe, James	68	1 18 –	Parr, Robert	67	1 7 –
Hodgson, Robert	58	1 18 –	Parker, Samuel	54	– 18 –
Hamilton, Edward	68	1 18 –	Peacock, Thomas	72	2 2 –
Hunter, William	66	1 7 –	Pycock, John	64	1 18 –
Humpherson, Thomas	68	1 12 –	Pretious, John	55	1 2 –
Hoodlass, Edward	63	1 12 –	Peacock, John	64	1 7 –

Trinity House of Kingston-upon-Hull—Out-Pensions, Quarterly.—Men with Wives—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter.	NAME OF PENSIONER.	Age.	Amount of Pension per Quarter.
		£. s. d.			£. s. d.
llard, John	59	1 2 –	Towning, Joseph	69	1 2 –
bus, James	61	– 18 –	Tasker, Thomas	64	1 7 –
akney, William	60	2 2 –	Townend, John	63	1 12 –
acheon, George	54	1 7 –	Thrussell, Joseph	59	1 2 –
vell, Robert	53	– 18 –	Templeman, George	32	– 18 –
nney, Francis	58	1 2 –	Twidale, John	67	1 7 –
hardson, Benjamin	51	– 18 –	Taylor, William	51	– 18 –
gers, Philip	66	– 18 –	Tickelpenny, James	68	– 18 –
ywood, James	72	– 18 –	Thompson, Joseph	63	1 2 –
dhead, Robert	68	1 12 –	Taylor, John	61	1 7 –
ebuck, George	66	1 2 –	Temple, Thomas	71	– 18 –
opeth, William	62	1 7 –	Usher, Robert	64	1 12 –
ckett, Robert	63	– 18 –	Whiting, Edward	59	1 7 –
binson, James	64	1 18 –	Witty, Peter	78	1 18 –
insforth, William	35	– 18 –	Williamson, Francis	76	– 18 –
ith, William	76	1 2 –	Whaley, Joseph	57	1 2 –
rborough, George	76	1 18 –	West, Charles	63	1 12 –
wden, John	65	1 12 –	Wardell, Thomas	72	1 2 –
fton, George	61	– 18 –	Waiting, Ralph	71	– 18 –
tton, Samuel	73	1 7 –	Watson, John	52	1 2 –
sworth, James	58	– 18 –	Williamson, George	74	– 18 –
ann, Thomas	72	1 2 –	Wells, Edward	70	1 18 –
aman, Ezekiel, W.	68	– 18 –	White, Isaac	61	1 7 –
ddaby, Thomas	65	1 2 –	Wilson, Thomas	59	1 12 –
ith, William	66	1 12 –	Wilson, William	67	1 18 –
ink, John	62	1 12 –	Willingham, Michael	73	2 2 –
w, John	63	– 18 –	Wilkinson, William	56	– 18 –
ith, James	66	– 18 –	Webb, Joseph	68	– 18 –
ipstone, John	65	1 7 –	Whitfield, John	68	1 2 –
offin, Martin	64	1 12 –	Wilson, John	52	1 2 –
ith, Charles	65	– 18 –	Watson, William	67	– 18 –
ales, William	65	– 18 –	Warburton, John	63	1 2 –
ith, Robert	66	1 12 –	Wright, Christopher	62	1 2 –
okill, William	62	1 2 –	Ward, Thomas	65	1 12 –
ence, John	55	1 2 –	Walsam, William	61	2 2 –
ephenson, William	62	2 2 –	Wharam, William	63	1 12 –
apman, Edward	81	– 18 –	Wilby, George	58	1 7 –
eson, Edward	70	1 7 –	Wild, James H.	69	1 2 –
aylor, George	65	1 12 –	Young, Robert	64	1 2 –

LIST of the Wives of the Quarterly OUT-PENSIONERS who had a vested Interest in the Funds of the Corporation prior to the 15th March 1861, showing the Name and Age, and the Amount of Pension to be paid to them, provided they survive their Husbands.

NAME OF PENSIONER.	Age.	Amount of Contingent Pension per Quarter.	NAME OF PENSIONER.	Age.	Amount of Contingent Pension per Quarter.
		£. s. d.			£. s. d.
ppleyard, Elizabeth	39	– 18 –	Banks, Barbara	71	1 7 –
rnold, Susan	63	1 2 –	Blackburn, Mary	59	1 2 –
tkinson, Philadelphia	77	– 18 –	Barker, Hannah	69	1 18 –
tkin, Jane	65	1 2 –	Barnett, Catherine	53	1 7 –
tkinson, Eleanor	56	1 12 –	Bailey, Elizabeth	55	1 7 –
skup, Susannah	68	– 18 –	Bullock, Millicent	77	2 2 –
insworth, Alice Ann	71	1 18 –	Bewley, Mary Ann	61	1 2 –
nstwick, Elizabeth	67	– 18 –	Bullock, Alice	53	– 18 –
nderson, Mary Esther	47	1 2 –	Bulmer, Susannah	61	2 2 –
aron, Elizabeth	68	1 2 –	Beall, Ann	59	– 18 –
tkin, Elizabeth	62	1 2 –	Blyth, Ellen	63	1 7 –
ustwick, Jane	65	1 2 –	Best, Susannah	66	1 18 –
ustin, Sarah	71	1 12 –	Biggins, Sarah	51	1 12 –
nderson, Sarah Elizabeth	39	1 2 –	Broughton, Sarah	55	1 18 –
ppleby, Susannah	62	1 12 –	Boanson, Elizabeth	43	1 12 –
insworth, Elizabeth	71	– 18 –	Bust, Hannah	56	1 18 –
ppleby, Jane	54	1 2 –	Bell, Sarah	51	1 7 –
rmitage, Ann	50	1 2 –	Brier, Eliza	52	1 12 –
rough, Mary	60	– 18 –	Briggs, Susannah M.	45	1 7 –
inning, Jane	72	1 2 –	Brodrick, Martha	44	1 2 –
urton, Maria	63	1 2 –	Beadling, Nancy	59	1 2 –
riggs, Betty	62	– 18 –	Brewer, Harriet	32	– 18 –

Trinity House of Kingston-upon-Hull—List of Wives of the Quarterly Out-Pensioners—*continued.*

NAME OF PENSIONER.	Age.	Amount of Contingent Pension per Quarter. £.	s.	d.
Barney, Jane	38	–	18	–
Carver, Ann	80	–	18	–
Clark, Mary	48	–	18	–
Cobb, Harriet	63	–	18	–
Crew, Mary	73	1	2	–
Carmichael, Sarah	72	–	18	–
Cressey, Hannah	60	–	18	–
Camplin, Martha	64	1	2	–
Carlisle, Anne	69	1	18	–
Cockerell, Jane	58	–	18	–
Clayburn, Mary	70	1	7	–
Cappleman, Susan	35	–	18	–
Carmichael, Emma	51	1	18	–
Clappison, Mary Ann	58	1	7	–
Cummins, Jane	46	–	18	–
Cawthorne, Sarah	61	1	7	–
Coverdale, Anne	57	1	2	–
Cawthorne, Elizabeth	49	–	18	–
Chapman, Mary	60	1	2	–
Cook, Mary Ann	58	1	2	–
Close, Ann	64	–	18	–
Carter, Ellen	65	–	18	–
Clark, Ann	70	1	2	–
Crisp, Eliza	41	1	7	–
Chapman, Jane	60	1	7	–
Cockin, Sarah	58	–	18	–
Casely, Mary	53	3	12	–
Davison, Mary	63	1	7	–
Day, Eleanor	44	–	18	–
Dean, Eliza	49	–	18	–
Dey, Mary	75	–	18	–
Dale, Ann	68	1	18	–
Dunnell, Janet	40	1	18	–
Dawson, Ann W.	56	1	18	–
Davis, Elizabeth	53	2	2	–
Davey, Sarah	68	1	2	–
Donaldson, Jane	60	–	18	–
Dougall, Susannah	61	1	7	–
English, Mary	57	1	7	–
Edwards, Dinah	48	1	18	–
Ezart, Esther	58	1	2	–
Earle, Ann	61	–	18	–
Ellis, Mary	62	1	7	–
Etherington, Elizabeth	69	1	12	–
Edwards, Hannah	60	1	7	–
Furness, Elizabeth	64	1	2	–
Fox, Sarah	53	–	18	–
Fishcroft, Jane	65	1	18	–
Foy, Margaret	65	1	12	–
Fisher, Mary	68	1	7	–
Fish, Sarah	54	1	18	–
Gray, Hannah	61	1	7	–
Griffin, Arabella	67	–	18	–
Goodhall, Jane	43	–	18	–
Gray, Elizabeth	59	1	12	–
Giles, Mary	47	1	2	–
Hutchinson, Mary	77	2	2	–
Hodgson, Mary	50	–	18	–
Harrison, Mary	59	1	12	–
Hall, Nancy	56	–	18	–
Horn, Elizabeth	62	1	2	–
Hinchliffe, Maria	62	1	18	–
Hodgson, Elizabeth	56	1	18	–
Hamilton, Susannah	68	1	18	–
Hunter, Isabella	65	1	7	–
Humpherson, Ann	60	1	12	–
Hoodlass, Ann	59	1	12	–
Hardy, Mary Ann	60	1	12	–
Hardy, Hannah	59	–	18	–
Hebblewhite, Eleanor	58	1	12	–
Hawkins, Sarah K.	45	1	12	–
Hall, Elizabeth	61	1	12	–
Hollingsworth, Hannah	61	1	7	–
Hamshaw, Elizabeth	46	–	18	–
Hardy, Margaret	51	1	2	–
Holt, Elizabeth	67	–	18	–
Hossell, Jane	59	1	2	–
Jackson, Henrietta	56	1	7	–
Jewitt, Ann	48	1	2	–
Johnson, Alice	67	1	12	–
Jackson, Ann	69	1	2	–
Johnson, Ann	62	1	2	–
Jackson, Mary	51	1	2	–
Johnson, Hannah	65	1	7	–
Jewitt, Martha	41	1	7	–
Jackson, Mary	52	–	18	–
Johnson, Hannah	55	1	2	–
Jameson, Mary	46	1	12	–
King, Mary Ann	48	–	18	–
Kay, Mary	59	–	18	–
Knott, Catharine M.	59	1	2	–
King, Mary Ann	47	2	8	–
Lyon, Hannah	68	1	7	–
Leedom, Elizabeth	67	3	–	–
Lekey, Elizabeth	68	1	7	–
Langfield, Rebecca	73	1	18	–
Longthorp, Maria	51	1	2	–
Lee, Mary	52	1	2	–
Leggott, Mercy	67	–	18	–
Lewsley, Sarah	63	1	2	–
Lamb, Ann	60	1	12	–
Lee, Jane	58	1	2	–
Lee, Elizabeth	51	1	7	–
Loggin, Jane	59	1	12	–
Morton, Ellen Elizabeth	50	–	18	–
Moseley, Sarah	77	1	12	–
Matthewman, Mary Ann	78	1	18	–
Maiden, Elizabeth	66	1	12	–
Maddison, Ann	56	1	2	–
Mason, Mary	57	1	2	–
Mottisher, Hannah	53	1	7	–
Megginson, Johanna	62	1	12	–
Mozley, Mary	57	1	12	–
Meek, Jane	51	1	7	–
Mitchell, Ann	57	1	7	–
Moloney, Elizabeth	63	3	12	–
M'Leod, Maria	62	1	2	–
Mackerill, Mary	60	1	7	–
Miles, Elizabeth	59	1	7	–
Martin, Molly	69	–	18	–
Morris, Mary	55	–	18	–
Newton, Mary	61	–	18	–
Nicholson, Elizabeth	62	1	7	–
Osburne, Elizabeth	78	1	2	–
Owbridge, Fanny	62	1	18	–
Parkinson, Jane	63	–	18	–
Pratt, Jane	54	–	18	–
Peaker, Amindá	65	1	2	–
Peck, Martha	61	1	2	–
Predgen, Sarah	58	–	18	–
Pepper, Mary Ann	48	1	2	–
Postill, Jane	46	–	18	–
Palmer, Elizabeth	74	1	2	–
Pettinger, Emily	71	1	7	–
Parr, Ann	61	1	7	–
Parker, Grace	49	–	18	–
Peacock, Elizabeth	70	2	2	–
Pycock, Mary	63	1	18	–
Pretious, Elizabeth	51	1	2	–
Peacock, Elizabeth	57	1	7	–
Pollard, Mary	59	1	2	–
Pybus, Hannah	58	–	18	–
Pinkney, Jean	60	2	2	–
Pincheon, Ann	48	1	7	–
Revell, Ann	53	–	18	–
Renney, Elizabeth	58	1	2	–

Trinity House of Kingston-upon-Hull.—List of Wives of the Quarterly Out-Pensioners—*continued.*

NAME OF PENSIONER.	Age.	Amount of Contingent Pension per Quarter. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Contingent Pension per Quarter. £. s. d.
hardson, Margaret	49	– 18 –	Thrussell, Maria	58	1 2 –
gers, Elizabeth	70	– 18 –	Templeman, Ann	31	– 18 –
ywood, Ava	66	– 18 –	Twidale, Elizabeth	65	1 7 –
lhead, Alice	65	1 12 –	Taylor, Ann	51	– 13 –
bbuck, Elizabeth	68	1 2 –	Ticklepenny, Bessey	56	– 18 –
peth, Mathilda	63	1 7 –	Thompson, Mary	63	1 2 –
kett, Elizabeth	49	– 18 –	Taylor, Elizabeth D.	52	1 7 –
binson, Isabella	46	1 18 –	Temple, Sarah	74	– 18 –
nsforth, Mary Ann	32	– 18 –	Usher, Christiana	62	1 12 –
th, Rachael	66	1 2 –	Whiting, Ann	56	1 7 –
rbrough, Mary	59	1 18 –	Witty, Hannah	71	1 18 –
den, Sarah	62	1 12 –	Williamson, Fanny	75	– 18 –
on, Alice	61	– 18 –	Whaley, Mary	59	1 2 –
ton, Elizabeth	72	1 7 –	West, Lydia	62	1 12 –
sworth, Hannah	58	– 18 –	Wardell, Henrietta	65	1 2 –
nn, Eleanor	69	1 2 –	Waiting, Hannah	72	– 18 –
nan, Sarah	56	– 18 –	Watson, Ann	52	1 2 –
daby, Mary Ann	59	1 2 –	Williamson, Lucy	70	– 18 –
th, Elizabeth	48	1 12 –	Wells, Mary	63	1 18 –
nk, Elizabeth	57	1 12 –	White, Jane	66	1 7 –
w, Mary	65	– 18 –	Wilson, Harriet	58	1 12 –
th, Mary	65	– 18 –	Wilson, Mary	62	1 18 –
pstone, Elizabeth	64	1 7 –	Willingham, Mary	63	2 2 –
ffin, Ann	58	1 12 –	Wilkinson, Elizabeth	56	– 18 –
th, Mary	61	– 18 –	Webb, Mary	52	– 18 –
les, Elizabeth	59	– 18 –	Whitfield, Jane	56	1 2 –
th, Mary	59	1 12 –	Wilson, Elizabeth	50	1 2 –
kell, Fanny	53	1 2 –	Watson, Ann	61	– 18 –
nce, Jane	50	1 2 –	Warburton, Mary Ann	60	1 2 –
phenson, Margaret H.	53	2 2 –	Wright, Ann	66	1 2 –
man, Mary	87	– 18 –	Ward, Jane	58	1 12 –
son, Elizabeth	62	1 7 –	Walsam, Mary	61	2 2 –
lor, Hannah	66	1 12 –	Wharam, Ann	64	1 12 –
vning, Elizabeth	69	1 2 –	Wilby, Mary Ann	53	1 7 –
ker, Ann	64	1 7 –	Wild, Ann	34	1 2 –
vnend, Ann	60	1 12 –	Young, Hannah	67	1 2 –

Out-Pensions, Quarterly.—Single Men.

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.
ars, George	63	– 18 –	Farnill, William	60	1 2 –
l, John F.	78	2 8 –	Farrow, Robert	65	1 2 –
ks, William	81	– 18 –	Freeman, Robert	64	1 12 –
eman, John	84	– 18 –	Fawcett, Richard	63	1 2 –
ty, William	78	1 2 –	Fish, Thomas	62	– 18 –
gess, John	65	1 12 –	Grover, John	59	– 18 –
xup, Thomas	67	1 2 –	Godfrey, John	72	1 2 –
l, Edward	64	– 18 –	Hall, John Caddle	69	1 2 –
ker, Joseph	68	2 8 –	Horsman, George	75	1 7 –
ntley, James	47	1 7 –	Headon, George	70	1 18 –
own, James	67	– 18 –	Harrison, John	36	– 18 –
d, Robert	67	– 18 –	Hickson, Joseph	76	1 18 –
ron, William S.	64	1 7 –	Hoodlass, John V.	62	1 12 –
gnall, George	66	1 7 –	Harrison, George	66	1 2 –
own, John	67	1 7 –	Jarvis, Charles	64	1 7 –
gham, W. A.	77	9 2 –	Johnson, William	68	– 18 –
ssons, Edward	82	2 2 –	Johnson, Samuel	48	1 2 –
ssby, Robert	86	1 7 –	Kavell, Thomas	66	1 12 –
ckles, John	51	– 18 –	Louth, Robert	68	1 3 –
r, Richard	73	1 2 –	Lidgard, Charles	68	1 2 –
rk, Robert	56	– 18 –	* Lee, William	64	1 7 –
pes, Charles	70	1 7 –	Lowther, Patrick	67	– 18 –
ssons, Robert	64	1 2 –	Lumley, William	82	– 18 –
ckerill, James	70	1 2 –	Leake, William	62	– 18 –
erry, Peter	67	1 12 –	Lambert, Thomas	68	– 18 –
dds, Joseph	80	– 18 –	Lowery, John	65	1 2 –
vison, John	60	1 7 –	Large, Joseph T.	56	1 7 –
ison, Joseph	60	1 2 –	Lazenby, Edward	63	1 2 –

Trinity House of Kingston-upon-Hull—Out-Pensions, Quarterly—Single Men—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.	NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
Meek, John Cook	75	–	18	–	Simpson, William	61	1	2	–
Mason, John	67	1	12	–	Storr, John	74	–	18	–
Martindale, Ralph	69	–	18	–	Tossell, John	57	–	18	–
Makins, William	39	–	18	–	Turton, John	81	1	2	–
Marshall, John	57	–	18	–	Turner, William	65	1	12	–
Miles, William	60	1	12	–	Tweedale, William D.	61	1	7	–
Newport, John	62	1	18	–	Vansburg, John	52	1	7	–
Ovington, Charles	74	1	12	–	Williams, Robert	75	1	18	–
Oldfield, Thomas	67	1	2	–	Winter, George	50	1	2	–
Pettinger, John	71	1	12	–	Woollas, Benjamin	75	–	18	–
Page. William	67	–	18	–	Wheldale, John	56	–	18	–
Pelham, William P.	59	3	–	–	Webster, Henry	69	1	7	–
Riches, Isaac	70	1	18	–	Webster, William	64	–	18	–
Rowland, William	66	–	18	–	Walker, John	66	1	2	–
Rowan, Robert	61	1	7	–	Wilkinson, William	63	1	7	–
Ramskill, Robert	69	1	7	–	Wilson, David	62	1	7	–
Smith, George	78	3	–	–	Wells, William	64	1	12	–
Shepherd, Benjamin	72	–	18	–	Wade, Joseph	68	–	18	–
Spours, George	64	1	18	–	Young, Cornelius	73	–	18	–
Smith, George	67	1	7	–					

Out-Pensions, Quarterly—Widows.

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.	NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
Widow of Ashton, George	60	1	1	–	Widow of Brocklesby, Richard	73	–	18	–
„ Arundell, Isaac	62	–	18	–	„ Brough, Robert	60	1	2	–
„ Agar, William	62	–	18	–	„ Bulmer, Roger	61	1	2	–
„ Adamson, William	57	–	18	–	„ Barton, Robert	75	–	18	–
„ Anderson, Richard	60	–	18	–	„ Bellard, John	88	2	8	–
„ Acklam, William	74	1	2	–	„ Burton, William	67	1	2	–
„ Aucklund, Thomas	72	1	7	–	„ Bower, John	57	–	18	–
„ Adamson, Thomas	62	1	2	–	„ Bates, Christopher	75	1	2	–
„ Addy, Joseph	70	1	2	–	„ Beadling, George	59	1	2	–
„ Acaster, John	86	1	2	–	„ Bullock, Joseph	67	1	7	–
„ Arthur, John	52	–	18	–	„ Butterworth, Edward	78	–	18	–
„ Alcock, Joseph	57	2	8	–	„ Barton, William	63	1	2	–
„ Anderson, Thomas	61	1	2	–	„ Brown, Daniel	75	3	12	–
„ Allon, James	72	1	7	–	„ Burstall, John	58	–	18	–
„ Axelson, Hans	67	1	12	–	„ Barnett, John	67	–	18	–
„ Agar, William	65	1	12	–	„ Baldock, William	66	–	18	–
Widow or wife of Ash, George	48	–	18	–	„ Barber, Thomas	62	2	2	–
Widow of Atkinson, William	65	–	18	–	„ Burland, John	57	–	18	–
„ Agars, William	63	1	18	–	„ Banks, John	55	1	18	–
„ Archer, Charles	71	–	18	–	„ Boke, William	72	–	18	–
„ Atkinson, John	68	2	8	–	„ Butterworth, William	75	–	18	–
„ Acaster, John	47	–	18	–	„ Brown, Charles	56	3	–	–
„ Appleby, William	65	1	12	–	„ Bayes, Richard	53	–	18	–
„ Allen, William	37	–	18	–	„ Bastow, Joseph	69	–	18	–
„ Anderson, John	53	1	2	–	„ Boyd, James	58	1	2	–
„ Askam, John	46	1	2	–	„ Barker, Samuel	63	1	2	–
„ Adams, George	59	1	18	–	„ Batler, Peter	68	1	7	–
„ Allen, John	48	3	–	–	„ Bell, George	67	1	2	–
„ Arnold, William	60	1	2	–	„ Batty, David	70	1	2	–
„ Austwick, Samuel	62	1	2	–	„ Bloom, Thomas	56	1	18	–
„ Abel, George	35	–	18	–	„ Berriman, John	61	–	18	–
„ Atkinson, William	56	1	18	–	„ Bleasby, Jonathan	61	1	7	–
„ Anderson, Francis	36	–	18	–	„ Brier, Martin	59	1	18	–
„ Brown, Samuel	63	1	3	–	„ Bell, John	51	1	18	–
„ Brown, Robert	65	1	8	–	„ Bloome, James	71	2	2	–
„ Bates, Robert	65	1	14	–	„ Bond, William	46	1	7	–
„ Briggs, Thomas	78	1	6	–	„ Brewis, Thomas	57	1	7	–
„ Burrows, Samuel	71	1	13	–	„ Borrell, John	48	–	18	–
„ Ball, John	62	1	2	–	„ Banks, George	63	1	12	–
„ Brooks, Charles	73	–	18	–	„ Brown, Birch	43	–	18	–
„ Burrill, John	61	1	7	–	„ Braham, Francis	59	1	7	–
„ Bailey, Benjamin	70	1	2	–	„ Bray, Abraham	80	–	18	–
					„ Blaney, John	60	1	7	–

Trinity House of Kingston-upon-Hull—Out Pensions, Quarterly—Widows—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
ow of Bateman, Walter -	44	1	2	–
„ Batty, James - -	58	1	7	–
„ Buckton, Thomas -	73	2	2	–
„ Brown, Daniel - -	44	3	–	–
„ Blanchard, Peter W. -	62	1	2	–
ow or wife of Bushby, George	47	1	2	–
ow of Bartlett, Robert - -	47	1	2	–
„ Burton, Thomas - -	52	1	7	–
„ Baker, William - -	60	1	2	–
„ Burton, John - -	65	–	18	–
„ Boddy, Francis - -	64	1	12	–
„ Box, George - -	44	1	18	–
„ Bygott, William - -	42	2	2	–
„ Batty, John - -	47	1	18	–
„ Banks, John - -	41	1	2	–
„ Brown, John - -	59	1	2	–
„ Bedale, Stephen - -	62	1	7	–
„ Bailey, David - -	48	1	18	–
„ Baren, Josh. - -	43	1	2	–
„ Bennington, Edward -	37	1	7	–
„ Brand, Stephen - -	58	1	2	–
„ Bagley, William -	36	1	2	–
„ Brown, John - -	57	1	2	–
„ Brewer, Thomas - -	73	1	7	–
„ Brashaw, John - -	32	1	18	–
„ Birch, Thomas - -	63	1	18	–
„ Brooks, William H. -	35	1	12	–
„ Baitson, Anthony -	60	1	18	–
„ Brownbridge, John -	57	–	18	–
ow or wife of Bissett, Joseph	48	2	2	–
ow of Crabtree, Thomas -	71	1	14	–
„ Carr, William - -	65	1	7	–
„ Catlow, James - -	68	1	13	–
„ Colley, Thomas - -	71	1	13	–
„ Chambers, Joseph -	69	1	2	–
„ Campbell, Duncan -	72	–	18	–
„ Collings, Thomas -	71	1	2	–
„ Crossby, Richard -	63	1	2	–
„ Clark, Richard - -	76	–	18	–
„ Cawthorne, William -	57	–	18	–
„ Cawthorne, Josh. -	58	–	18	–
„ Conyers, John - -	68	1	7	–
„ Cusworth, Richard -	55	1	7	–
„ Chambers, William -	52	1	2	–
„ Cox, Richard - -	57	1	2	–
„ Chumley, Edward -	74	–	18	–
„ Collingwood, Josh. -	81	1	7	–
„ Curry, John - -	65	–	18	–
„ Cape, Leonard - -	55	2	2	–
„ Cundill, Ralph - -	78	–	18	–
„ Carrow, John - -	69	–	18	–
„ Colley, John - -	58	1	2	–
„ Carr, William - -	52	–	18	–
„ Collins, John - -	53	1	7	–
„ Clay, Michael - -	75	1	7	–
„ Curtin, John W. -	65	–	18	–
„ Chaplin, William T. -	50	1	18	–
„ Carter, William - -	53	–	18	–
„ Clark, John - -	52	2	2	–
„ Carr, John - - -	65	–	18	–
„ Carver, William - -	50	1	2	–
„ Coughlan, Terance -	74	1	2	–
How or wife of Curle, John -	58	1	7	–
How of Colbert, Matthew -	67	1	7	–
„ Carter, John - -	67	–	18	–
„ Cook, James - -	68	–	18	–
„ Crampton, Henry -	53	1	2	–
„ Corlyon, Simon P. -	46	1	18	–
„ Cookson, Henry - -	56	–	18	–
„ Cussons, Robert - -	55	1	2	–
„ Cobby, John Dent -	38	1	18	–
„ Clifton, Isaac - -	64	1	7	–
Widow of Clay, Michael - -	42	–	18	–
„ Clark, George - -	59	1	2	–
„ Clark, William - -	51	1	2	–
„ Cross, Henry - -	37	2	8	–
„ Coupland, Henry -	54	1	7	–
„ Cordingley, Henry -	40	2	8	–
„ Cockrill, John H. -	51	1	7	–
„ Chappell, Thomas -	56	1	18	–
„ Cattle, James - -	66	1	2	–
„ Crew, Henry - -	52	1	2	–
„ Canham, William -	43	–	18	–
„ Colledge, Samuel -	62	1	12	–
„ Close, Miles - -	33	–	18	–
„ Conyers, Leonard -	57	1	7	–
„ Coulson, Francis -	57	2	2	–
„ Clough, Maple -	57	1	2	–
„ Crossby, John - -	31	1	2	–
„ Cook, William - -	44	1	18	–
„ Carrick, John - -	32	2	8	–
„ Crashaw, Robert -	45	1	2	–
„ Carmichael, Josh. -	39	1	2	–
„ Craib, Thomas - -	33	–	18	–
„ Coutts, Thomas -	40	–	18	–
„ Crane, William - -	50	1	12	–
„ Cockin, Josh. - -	27	–	18	–
„ Dalby, James - -	70	1	12	–
„ Duncan, George -	70	1	13	–
„ Dunkerly, George -	59	1	12	–
„ Dow, Josh. - -	66	1	2	–
„ Davis, Samuel - -	69	1	7	–
„ Duffield, John - -	61	–	18	–
„ Davis, John - -	74	2	2	–
„ Dickinson, Yeoman -	64	1	7	–
„ Draper, Valentine -	77	1	7	–
„ Drabwell, William -	61	1	2	–
„ Dunkin, James - -	62	1	2	–
„ Dean, Joseph - -	48	3	–	–
„ Dobson, Noah - -	56	1	7	–
Widow or wife of Dickson, Thos.	52	1	18	–
Widow of Danvers, Richard -	61	1	12	–
„ Dennison, Josh. -	45	1	18	–
„ Dickinson, Thomas -	62	–	18	–
„ Dey, Josh. - -	59	–	18	–
„ Davis, George - -	45	1	7	–
„ Davis, Benjamin -	37	1	2	–
„ Dougall, William -	53	2	8	–
„ Drabwell, Richard -	51	1	2	–
„ Davis, Henry - -	45	1	18	–
„ Dale, George - -	32	–	18	–
„ Dannatt, John H. -	47	1	7	–
„ Dalby, Thomas - -	55	1	2	–
„ Dudding, Thomas -	58	1	7	–
„ Donaldson, Thomas -	59	–	18	–
„ Dyson, Robert - -	26	1	18	–
„ Dixon, William -	74	1	7	–
Widow or wife of Driffill, William	51	1	2	–
Widow of Davis, John - -	57	1	7	–
„ Dring, Henry - -	78	6	13	4
„ Elder, David - -	72	1	8	–
„ Elliott, Christopher -	77	1	11	–
„ Ellis, Thomas - -	71	–	18	–
„ Eaton, John - -	73	1	3	–
„ Evans, William -	57	–	18	–
„ Ellis, Alexander -	61	–	18	–
„ Eddy, John - -	67	–	18	–
Widow or wife of Ellis, Josh. -	54	1	7	–
Widow of Elliott, Josh. - -	52	1	12	–
„ Ellis, John - -	46	1	18	–
„ Ellis, Thomas - -	52	–	18	–
„ Edmonds, John -	62	1	7	–
„ Earthcoates, Thomas -	65	1	7	–
„ Elletson, William -	49	–	18	–

Trinity House of Kingston-upon-Hull—Out Pensions, Quarterly—Widows—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
Widow of Elliott, John	47	–	18	–
„ Ellis, Thomas	41	1	18	–
„ Farmery, John	57	1	–	–
„ Fawcett, George	60	–	18	–
„ Farrow, John	58	1	7	–
Widow or wife of Fenton, William	72	2	2	–
Widow of Finney, Richard	79	–	18	–
„ Foster, James	60	1	2	–
„ Fernott, William	57	1	7	–
„ Furniss, Joseph	55	–	18	–
„ Forster, Edward	80	1	2	–
„ Farrer, John	68	1	18	–
„ Farrow, George R.	56	1	12	–
„ Fallowfield, George	60	–	18	–
„ Farr, John	57	1	2	–
„ Farnill, Paul	57	1	18	–
„ Farnill, Henry	59	1	2	–
„ Ford, Richard	62	2	8	–
„ Fox, Robert	49	3	–	–
„ Forth, Milburn	46	–	18	–
„ Fell, Thomas	48	1	18	–
„ Fox, John	58	–	18	–
„ Fernott, John	54	1	12	–
„ Farnill, William	44	–	18	–
„ Finch, Robert	49	1	18	–
„ Fountain, Nathaniel	60	1	2	–
„ Fraser, William	43	–	18	–
„ Greaves, Robert	68	1	8	–
„ Gardner, John	63	1	8	–
„ Green, John	66	1	14	–
„ Grimshaw, William S.	56	1	2	–
„ Gibson, Charles	60	–	18	–
„ Gill, Thomas	76	1	2	–
„ Gask, William	66	1	2	–
„ Gawthorp, William	50	1	2	–
„ Green, George	61	2	2	–
„ Goodill, John	66	1	7	–
„ Greenwood, Joseph	70	–	18	–
„ Gill, William B.	65	1	2	–
„ Goodyear, William	61	1	7	–
„ Gamsby, Thomas	60	1	12	–
„ Groat, Henry	50	2	8	–
„ Gask, William Jarvis	41	2	2	–
„ Griffiths, David	51	1	2	–
„ Gibson, John	57	1	12	–
„ Gale, William	48	1	18	–
„ Gray, John H.	51	–	18	–
„ Green, James	36	–	18	–
„ Grime, William	60	1	7	–
„ Gibson, John N.	31	1	18	–
„ Grant, William	58	1	7	–
„ Gill, George	55	3	–	–
„ Graham, William	23	–	18	–
„ Gibson, John	27	1	18	–
„ Green, John	28	–	18	–
„ Highley, Matthew	73	1	14	–
„ Hunt, George	66	1	7	–
„ Hall, William	60	1	–	–
„ Hornby, George	64	1	18	–
Widow or wife of Hill, John	67	–	18	–
Widow of Holmes, Charles	62	–	18	–
„ Headley, George	58	–	18	–
„ Heldt, Frederick	49	–	18	–
„ Harlan, John	70	1	16	–
„ Hill, Francis	70	–	18	–
„ Hood, Richard	70	–	18	–
Widow or wife of Heald, Charles	62	–	18	–
Widow of Hodge, Thomas	83	1	7	–
„ Hildred, David M.	72	–	18	–
„ Harrison, James	62	–	18	–
„ Hird, James	55	1	2	–
Widow of Harvey, John	70	1	12	–
„ Hunter, Robert	62	1	7	–
„ Heales, Michael	64	1	18	–
„ Hair, William	63	1	2	–
„ Hunt, William	63	1	7	–
„ Horracks, William, jun.	54	1	18	–
„ Hicks, William	55	2	2	–
„ Hall, William	76	–	18	–
„ Hunter, Robert	66	1	12	–
„ Homan, John	64	–	18	–
„ Hartley, William	72	2	2	–
„ Hebblewhite, Thomas	61	1	7	–
„ Hill, Richard	61	3	–	–
„ Hosthead, William	59	1	7	–
„ Horsfall, John	46	–	18	–
„ Hebblewhite, John	64	1	12	–
„ Hossell, George	65	1	7	–
„ Holdsworth, Thomas	51	–	18	–
„ Hunter, Magnus	51	1	18	–
„ Harrison, Thomas	53	2	2	–
„ Harvey, Robert W.	65	1	12	–
„ Harrison, William	35	–	18	–
Widow or wife of Hessey, William	57	1	18	–
Widow of Hindson, John	45	1	7	–
„ Holdsworth, George	45	3	–	–
„ Holmes, William	39	–	18	–
„ Homan, Robert	62	1	12	–
„ Horsman, John	46	–	18	–
„ Holmes, Thomas	56	1	12	–
„ Holmes, James	52	1	18	–
„ Hessey, Samuel	55	1	7	–
„ Howard, John	38	1	2	–
„ Hines, John	66	–	18	–
„ Hall, Leonard	57	1	2	–
„ Hindell, Henry	44	2	8	–
„ Hutchinson, William	55	1	7	–
„ Hilton, Benjamin	33	–	18	–
„ Hurdsman, John T.	21	1	7	–
„ Irvine, James	70	–	18	–
„ Irvine, Matthew	52	–	18	–
„ Ireland, George	63	–	18	–
„ Irvine, Peter	36	1	2	–
„ Jackson, John	76	1	–	–
„ Justus, George	71	1	7	–
„ Johnson, John	74	1	8	–
„ Joy, William	55	3	–	–
„ Jackson, William	66	1	7	–
„ James, Richard	60	1	2	–
„ Jordan, William	67	1	2	–
„ Joplin, John	53	1	2	–
„ Johnstone, Aaron	56	1	2	–
„ Jubb, John	74	1	2	–
„ Joules, William	52	–	18	–
„ Jackson, Samuel	59	2	2	–
„ Johnson, Thomas	58	1	2	–
„ Jenneson, Josh.	64	1	7	–
„ Johnson, George	62	1	7	–
„ Jackson, Thomas	43	–	18	–
„ Jefferson, John	60	1	2	–
„ Johnson, Robert	54	1	12	–
„ Jameson, John	67	1	7	–
„ Jones, David	59	1	12	–
„ Jackson, George	69	1	2	–
„ Jenkinson, Thomas C.	54	1	7	–
„ Jenneson, Benjamin	34	–	18	–
„ Jones, John	60	1	7	–
„ Jarratt, William	63	–	18	–
„ Jackson, John	39	1	18	–
„ Jackson, Thomas	29	–	18	–
„ Johnson, Richard, jun.	36	1	18	–
„ Jackson, David	63	1	7	–
„ Johnson, Thomas	59	2	2	–

Trinity House of Kingston-upon-Hull—Out Pensions, Quarterly—Widows—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £	s.	d.
idow of Killington, Thomas -	64	1	14	–
,, Kirby, Peter - -	66	1	7	–
idow or wife of Kirby, William	61	–	18	–
idow of Kershaw, Thomas -	66	1	7	–
,, King, James - -	58	1	2	–
,, Knight, Thomas - -	76	–	18	–
,, Kirby, Thomas F. -	56	1	16	–
,, King, Francis - -	28	–	18	–
,, Layton, George - -	69	1	8	–
,, Leedom, Thomas -	70	1	14	–
,, Loufbrough, Henry -	65	1	14	–
,, Lawson, Thomas -	66	1	7	–
,, Longthorp, John -	70	–	18	–
,, Lazenby, Thomas -	72	–	18	–
,, Lonsdale, William -	66	–	18	–
,, Le Drans, Felix - -	68	1	2	–
,, Lishman, John - -	57	3	–	–
,, Large, George - -	64	1	18	–
,, Lee, John - - -	53	–	18	–
,, Lee, John - - -	68	1	2	–
,, Lockett, Andrew -	71	1	2	–
,, Lancaster, George -	67	2	2	–
,, Lickiss, William - -	62	1	2	–
,, Ludders, Jacob - -	73	1	12	–
,, Loggin, William - -	50	1	2	–
,, Lloyd, William - -	69	1	18	–
,, Lyel, Joseph - -	60	2	8	–
,, Lankester, William -	43	1	7	–
,, Lund, John - -	76	1	2	–
,, Leech, Isaac - -	61	1	18	–
,, Loweth, Thomas - -	58	1	7	–
,, Lazenby, John - -	35	–	18	–
,, Laister, Robert - -	66	1	12	–
,, Lumley, William D. -	46	1	7	–
,, Lee, Thomas - -	74	3	12	–
,, Leighton, Haram -	47	–	18	–
,, Ledger, Joseph - -	63	1	7	–
,, Lee, Thomas, jun. -	51	2	8	–
,, Loufbrough, William -	30	–	18	–
,, Lawson, John - -	68	–	18	–
,, Lister, William - -	63	–	18	–
,, Lucas, Samuel - -	24	1	18	–
,, Moses, James - -	82	2	8	–
,, Mathas, William - -	76	2	2	–
,, Murton, George - -	70	1	7	–
,, Martin, Willian - -	71	2	2	–
,, Murton, George - -	65	–	18	–
,, Moore, Edward - -	77	1	2	–
,, Mowbray, Joseph -	80	–	18	–
,, Maxwell, Cordelio W. -	60	1	2	–
,, Morris, Robert - -	67	–	18	–
,, Merrikin, Edward -	60	–	18	–
,, Martin, Henry - -	71	–	18	–
,, Martin, Smith - -	64	–	18	–
,, Mitchell, Robert - -	79	1	2	–
,, Merchant, John - -	71	1	2	–
,, Mentrup, Richard -	52	1	18	–
,, Maw, John - -	65	1	7	–
,, Meynell, Jonathan -	64	1	2	–
,, Melton, Thomas - -	66	1	2	–
,, Marchont, William -	65	1	2	–
,, Maycock, John - -	67	1	18	–
,, Mann, John - -	61	1	2	–
,, Mellard, Martin - -	41	–	18	–
,, Maiden, William -	39	–	18	–
,, Marshall, William R. -	46	–	18	–
,, Martin, John - -	83	–	18	–
,, Moor, William - -	50	1	18	–
,, Markham, John - -	58	2	2	–
,, Megginson, Robert -	51	1	2	–
,, Moon, John - -	78	1	7	–
,, Marfleet, William -	71	1	18	–

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
Widow of Meek, Richard - -	52	1	16	–
,, Mather, Isaac B. -	61	2	8	–
,, M'Kenzie, John -	54	–	18	–
,, Muir, Thomas - -	58	–	18	–
,, Marchman, Charles -	55	1	2	–
,, Metham, Edward -	59	–	18	–
,, Marshall, William -	71	1	2	–
,, Matthews, Joseph -	40	–	18	–
,, Matthews, Richard -	66	1	7	–
,, Nicholson, Robert W.	75	1	2	–
,, Nevitt, John - - -	56	1	2	–
,, Nicholson, James -	42	–	18	–
,, Newbutt, George -	60	1	2	–
,, Nicholson, William -	60	1	2	–
,, Neville, Thomas -	61	–	18	–
,, Northouse, Thomas -	34	–	18	–
,, Naylor, Samuel - -	37	1	18	–
,, Nichol, George R. -	53	2	2	–
,, Newton, William -	53	1	12	–
,, Naylor, Samuel -	72	–	18	–
,, Nicholls, Joseph -	63	1	12	–
,, Notman, William -	44	1	2	–
,, Oliver, John - -	78	–	18	–
,, Osborne, Edward -	61	1	2	–
,, Owen, Robert - -	58	1	18	–
,, Oliver, William -	65	1	12	–
,, Oddie, Thomas - -	68	1	2	–
,, Owen, William - -	65	–	18	–
,, Overton, Edward -	42	–	18	–
,, Park, Alexander -	70	1	8	–
,, Pinder, Edward -	70	1	17	–
,, Pinder, James - -	65	1	2	–
,, Penman, James -	63	1	2	–
,, Parkin, William -	60	3	–	–
,, Plews, John - -	75	–	18	–
,, Palfreman, George -	64	1	12	–
,, Playfoot, James -	67	–	18	–
,, Playforth, George -	72	1	7	–
,, Purvis, Stephen -	71	1	2	–
,, Pitts, John - -	52	2	2	–
,, Price, John - -	68	–	18	–
,, Poole, Thomas - -	47	2	8	–
,, Pettinger, William -	82	1	2	–
,, Pocklington, William -	56	1	7	–
,, Parker, William -	66	–	18	–
,, Pool, Joseph - -	68	–	18	–
,, Pycock, Benjamin -	63	2	8	–
,, Parkin, Thomas -	63	1	2	–
,, Porter, Robert - -	63	–	18	–
,, Parkin, Johnson -	61	1	2	–
,, Pincheon, Dawson -	47	1	7	–
,, Patterson, John -	63	1	12	–
,, Pattrick, George -	48	1	7	–
,, Penney, Robert -	60	–	18	–
,, Parkin, William -	62	–	18	–
,, Parish, Henry - -	60	2	8	–
,, Proctor, Thomas -	60	1	2	–
,, Postell, William -	50	1	12	–
,, Pullon, William -	57	1	12	–
,, Palfreman, Valentine -	32	1	2	–
,, Peck, Samuel - -	64	1	2	–
,, Peace, Jonathan B. -	42	2	2	–
,, Purdon, John - -	55	–	18	–
,, Pashby, James - -	38	1	7	–
,, Quickfall, William -	72	2	2	–
,, Quickfall, Francis -	71	1	2	–
,, Riding, Joseph - -	75	1	11	–
,, Ripley, George - -	70	–	18	–
,, Roberts, William -	73	1	7	–
,, Richardson, John -	73	1	7	–
,, Robinson, David -	79	1	2	–
,, Rice, Jeremiah - -	70	1	2	–

Trinity House of Kingston-upon-Hull—Out Pensions, Quarterly—Widows—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
Widow of Rawson, Robert	77	1	12	–
„ Redfearn, George	69	–	18	–
„ Revell, George	57	1	2	–
„ Reynolds, Richard	70	1	7	–
„ Robinson, Thomas	60	–	18	–
„ Renney, William	60	–	18	–
„ Raven, Henry	58	1	12	–
„ Robson, Isaac	53	2	2	–
„ Richardson, William	64	1	18	–
„ Raine, Joseph	65	1	7	–
„ Reynolds, William	58	1	7	–
„ Robinson, James	59	2	2	–
Widow or wife of Russell, William	52	1	2	–
Widow of Robinson, John	56	–	18	–
„ Riley, John	68	1	12	–
„ Russell, John	48	–	18	–
„ Rickaby, George	53	1	2	–
„ Reed, Joseph	47	1	7	–
„ Robertson, Gilbert	49	–	18	–
„ Royston, Thomas	58	3	12	–
„ Richardson, Edwin	42	1	2	–
„ Read, Thomas	47	1	7	–
„ Reed, Thomas	65	–	18	–
„ Rounding, Robert	58	2	8	–
„ Robinson, William	55	2	2	–
„ Ray, Matthew W.	45	–	18	–
„ Russell, Henry	47	1	7	–
„ Rands, George	32	–	18	–
„ Rhodes, John	55	1	12	–
„ Robinson, John	51	2	2	–
„ Robinson, John	56	–	18	–
„ Reed, John	57	1	7	–
„ Russell, Joseph	23	–	18	–
„ Russell, James	57	1	7	–
„ Shepherd, Thomas	73	1	8	–
„ Shakesby, Thomas	68	1	14	–
„ Scorer, Jeremiah	70	1	14	–
„ Shepherd, Richard	69	1	6	–
„ Storey, John	65	2	10	–
„ Snowden, Joseph	64	1	7	–
„ Swallow, William	73	1	7	–
„ Schofield, Jonathan	64	1	7	–
„ Silburne, William	74	1	13	–
„ Season, Robert	66	1	13	–
„ Smith, Thomas	69	1	2	–
„ Storey, James	64	2	8	–
„ Simpson, James	61	–	18	–
„ Soulsby, Edward	64	1	12	–
„ Stockdale, Michael	58	1	7	–
„ Shaw, Thomas	67	1	7	–
„ Saggs, Robert	83	2	8	–
„ Smith, Charles	47	–	18	–
„ Strafford, Joseph	55	–	18	–
„ Stephenson, Thomas	72	1	7	–
„ Smith, Edward	46	1	2	–
„ Spencer, Stephen	67	–	18	–
„ Shutwell, John	67	1	2	–
„ Sadler, John	54	1	12	–
„ Smith, Jeremiah	54	1	2	–
„ Smith, Francis	62	2	2	–
„ Spencer, George	56	1	18	–
„ Smith, James	74	–	18	–
„ Smith, Charles	62	2	2	–
„ Smith, James	71	2	8	–
„ Smith, John	66	–	18	–
„ Smith, James	49	1	2	–
„ Smith, John	57	1	12	–
„ Slingsby, George	60	1	2	–
„ Standage, William	41	1	2	–
„ Spink, George	39	–	18	–
„ Spear, John	49	1	12	–
„ Sanderson, William	64	1	7	–
Widow of Sharp, Henry	58	1	18	–
Widow or wife of Stathers, Joseph	59	1	2	–
Widow of Simpson, Wilkinson	41	–	18	–
„ Sharp, George	64	–	18	–
„ Scott, William	68	1	2	–
„ Shaw, Thomas	70	1	2	–
„ Sawden, Thomas	70	1	18	–
„ Spain, Henry	66	–	18	–
„ Schofield, John	68	–	18	–
„ Sacker, Henry	62	1	2	–
„ Smith, John	54	–	18	–
„ Steels, Robert	38	2	8	–
„ Sawyer, Thomas	50	1	18	–
„ Smith, Charles	70	1	18	–
„ Sinkler, George	60	1	2	–
„ Sherwood, James	60	1	2	–
„ Slack, Robert	55	3	–	–
„ Shirtcliffe, George	59	1	18	–
„ Simpson, Richard	65	–	18	–
„ Swift, William	58	–	18	–
Widow or wife of Sutton, John	54	1	7	–
Widow of Skinner, William	58	1	18	–
Widow or wife of Smith, Thomas	61	1	18	–
Widow of Scholey, William A.	46	1	7	–
„ Swann, James	62	1	12	–
„ Spink, William	61	1	2	–
„ Stephenson, Thomas	56	1	16	–
„ Sykes, John	43	3	–	–
„ Smith, James	53	1	18	–
„ Schofield, Charles	43	2	2	–
„ Seaton, John	58	1	2	–
„ Stephenson, Bradbury	58	2	8	–
„ Salmon, William	64	–	18	–
„ Shoreson, Henry	47	–	18	–
„ Sharp, Henry	31	–	18	–
„ Scott, Edward A.	38	1	18	–
„ Simpson, George	31	2	2	–
„ Spendlove, William	41	1	2	–
„ Sawyer, Abiram	48	1	2	–
„ Sykes, Joseph	45	–	18	–
„ Stabler, William	47	–	18	–
„ Sigsworth, Thomas	64	–	18	–
„ Simpson, John	49	1	18	–
„ Shaw, Joseph	46	1	2	–
„ Stoker, William	39	–	18	–
„ Swift, Joseph	56	1	18	–
„ Smith, Thomas	64	1	7	–
Widow or wife of Simpson, George	40	2	8	–
Widow of Spetch, George	38	–	18	–
„ Savage, Charles	44	–	18	–
„ Sanderson, John	36	1	2	–
„ Taylor, John	65	1	8	–
„ Thairlwall, William	67	1	7	–
„ Thompson, John	69	1	2	–
„ Thistleton, Thomas	74	–	18	–
„ Taylor, Thomas	60	–	18	–
„ Turner, John	51	1	2	–
„ Taylor, Edward	70	1	2	–
„ Thompson, John	59	–	18	–
„ Taylor, William	63	1	18	–
„ Taylor, John	72	1	7	–
„ Taylor, Moses	59	–	18	–
„ Thomason, Jonathan	69	–	18	–
„ Townsley, Peter	57	–	18	–
„ Temple, Robert	74	1	7	–
„ Towning, Joseph	72	–	18	–
„ Thorp, George	71	–	18	–
„ Tasker, John E.	46	–	18	–
„ Turner, William	57	1	18	–
„ Towning, Matthew	48	–	18	–
„ Tomlinson, John	51	–	18	–
„ Taylor, Robert	45	1	18	–

Trinity House of Kingston-upon-Hull—Out Pensions, Quarterly—Widows—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
dow of Taylor, Robert	42	–	18	–
„ Thistleton, Charles	66	1	12	–
„ Thistleton, Henry	59	1	7	–
„ Titterton, John	44	1	7	–
„ Turgoose, William	34	1	2	–
„ Todd, George	62	1	7	–
„ Thompson, William	42	1	2	–
„ Townend, Richard	52	1	18	–
„ Tilley, Henry	42	–	18	–
„ Thompson, Henry	53	1	7	–
„ Taylor, William	43	–	18	–
„ Taylor, Joseph	36	1	2	–
„ Tharratt, Thomas G.	49	–	18	–
„ Turner, Edward	41	–	18	–
„ Todd, William	31	1	2	–
„ Turgoose, Henry	40	1	18	–
„ Townsley, Samuel	60	1	2	–
„ Turton, James	55	–	18	–
„ Templeman, Hy. S. T.	36	–	18	–
„ Turnbull, James	47	1	18	–
„ Vinson, John	54	1	18	–
„ Windle, Richard	67	1	3	–
„ Wilkinson, Robert	68	1	12	–
„ Wilson, John	52	1	7	–
„ Wilson, George	66	1	16	–
„ Wilson, Benjamin	61	–	18	–
„ Whitaker, Robert	70	–	18	–
„ Wallis, William	71	1	2	–
„ Woodhall, Charles	55	1	18	–
„ Waller, William	55	1	18	–
dow or wife of Whitehead, James.	64	1	2	–
idow of Wilson, Joseph	53	–	18	–
„ Ward, Anthony	48	–	18	–
„ Wright, Matthew	57	–	18	–
„ Watson, James	54	1	7	–
„ Wainman, Moses	78	1	18	–
„ Wray, John	74	1	7	–
„ Wellington, William	61	1	2	–
„ Whitaker, James	60	–	18	–
„ West, Charles B. N.	50	–	18	–
„ Ward, Thomas	68	1	12	–
„ Welburn, Thomas	57	–	18	–
„ Waltham, William	55	1	2	–
„ Wilkinson, Edward R.	46	2	2	–
„ Winn, William	56	2	2	–
„ Wilkinson, William	65	1	2	–
„ Watson, John	62	1	7	–
„ Wilson, William	63	1	7	–
„ Wright, William	66	2	2	–
„ Wilson, Stephen	63	2	2	–
„ Welburne, Robert	58	–	18	–
Widow of Ware, John M.	43	1	18	–
„ Williams, George	43	1	7	–
„ Watson, John	67	1	2	–
„ White, John	77	1	7	–
„ Wilkinson, William S.	63	–	18	–
„ Walker, William	64	–	18	–
„ Watson, Richard F.	64	1	12	–
„ Winn, George	66	1	2	–
„ Williams, Robert	57	1	18	–
„ Ward, Elijah	51	1	2	–
„ Whitehead, Thomas N.	50	–	18	–
„ Whitton, Timothy	69	1	7	–
„ Whiting, William	62	–	18	–
„ Wilson, William	61	1	12	–
„ Williamson, William	59	1	12	–
„ Watkinson, William	61	1	2	–
„ Wilson, Linton	57	1	18	–
„ Whiteman, Paul	65	1	12	–
„ Ward, John	50	–	18	–
„ Watson, George B.	67	2	8	–
„ Watson, Joseph	33	–	18	–
„ Wood, Joseph O.	39	–	18	–
„ Watson, George	48	3	12	–
„ Whiley, Edward	65	–	18	–
„ Woodall, Samuel	39	2	2	–
„ Woodcock, John B.	44	1	7	–
„ Waterhouse, William	43	2	8	–
„ Windle, William	62	1	1	–
„ Wiseman, Richard	55	–	18	–
„ Wright, John	35	1	12	–
Widow or wife of Wells, John William.	38	–	18	–
Widow of Watson, Thomas	41	2	8	–
„ Walker, George	43	–	18	–
„ Welburn, Michael H.	49	2	8	–
„ Wells, Thomas	40	1	7	–
Widow or wife of Wetherill, Charles.	39	–	18	–
Widow of Wells, Emanuel	56	2	2	–
„ Walker, John	45	1	2	–
„ Wharton, Joseph	61	–	18	–
„ Williams, Philip	39	–	18	–
„ Ward, Anthony	57	–	18	–
„ Watson, Thomas	62	–	18	–
„ Wilson, John	58	1	12	–
„ Walker, Richard	36	–	18	–
„ Wilson, John S.	62	1	2	–
„ Whiting, William	40	–	18	–
„ Waites, Thomas	52	1	12	–
„ Whitton, William	35	1	7	–
„ Wise, William B.	48	–	18	–
„ Youden, John	63	1	2	–
„ Yule, David	57	1	2	–

Trinity House of Kingston-upon-Hull—continued.

OUT-PENSIONS, QUARTERLY.—CHILDREN, whose Pensions cease on attaining the Age of 14 Years.

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
Son of Acaster, John	13	–	5	–
Son of Allen, William	13	–	5	–
Ditto - ditto	9	–	5	–
Son of Allen, John	13	–	5	–
Ditto - ditto	11	–	5	–
Son of Abel, George	10	–	5	–
Daughter of Abel, George	8	–	5	–
Ditto - ditto	5	–	5	–
Son of Anderson, Francis	5	–	5	–
Ditto - ditto	3	–	5	–
Ditto - ditto	3	–	5	–
Son of Appleby, John	12	–	5	–
Ditto - ditto	9	–	5	–
Son of Bond, William	12	–	5	–
Daughter of Brown, Daniel	12	–	5	–
Son of Bushby, George	11	–	5	–
Daughter of Box, George	12	–	5	–
Ditto - ditto	8	–	5	–
Son of Batty, John	13	–	5	–
Son of Banks, John	13	–	5	–
Ditto - ditto	10	–	5	–
Ditto - ditto	9	–	5	–
Ditto - ditto	6	–	5	–
Son of Bailey, David	13	–	5	–
Daughter of Baren, Joseph	12	–	5	–
Ditto - ditto	10	–	5	–
Ditto - ditto	8	–	5	–
Daughter of Bennington, Edward	10	–	5	–
Son of Bennington, Edward	8	–	5	–
Daughter of Bennington, Edward	3	–	5	–
Son of Bedford, Joseph	10	1	4	–
Daughter of Bagley, William	11	–	5	–
Son of Bagley, William	5	–	5	–
Daughter of Brashaw, John	7	–	5	–
Daughter of Brooks, William H.	9	–	5	–
Son of Brooks, William H.	7	–	5	–
Ditto - ditto	4	–	5	–
Ditto - ditto	1	–	5	–
Daughter of Boanson, William	12	–	5	–
Son of Bust, Thomas	13	–	5	–
Daughter of Brier, William	12	–	5	–
Son of Brier, William	9	–	5	–
Son of Biggins, Thomas	12	–	5	–
Daughter of Brodrick, William M.	12	–	5	–
Daughter of Brewer, Henry K.	6	–	5	–
Son of Brewer, Henry K.	2	–	5	–
Ditto - ditto	2 months	–	5	–
Son of Barney, Charles	11	–	5	–
Son of Cobby, John Dent	12	–	5	–
Son of Clark, William	10	–	5	–
Daughter of Cappleman, Thomas	12	–	5	–
Son of Cross, Henry	13	–	5	–
Ditto - ditto	11	–	5	–
Son of Cordingley, Henry	12	–	5	–
Son of Clappison, Benjamin	13	–	5	–
Daughter of Canham, William	10	–	5	–
Ditto - ditto	8	–	5	–
Son of Canham, William	5	–	5	–
Son of Close, Miles	4	–	5	–
Daughter of Cawthorne, William	13	–	5	–
Son of Cawthorne, William	10	–	5	–
Son of Crossby, John	8	–	5	–
Daughter of Crossby, John	5	–	5	–
Daughter of Cook, William	11	–	5	–
Son of Cook, William	9	–	5	–
Daughter of Cook, William	5	–	5	–
Daughter of Crisp, John	6	–	5	–
Son of Coutts, Thomas	7	–	5	–
Daughter of Coutts, Thomas	4	–	5	–
Ditto - ditto	1	–	5	–
Son of Cockin, Joseph	4	–	5	–
Daughter of Cockin, Joseph	10 months	–	5	–
Son of Dean, Joseph	13	–	5	–
Son of Davis, George	13	–	5	–
Ditto - ditto	10	–	5	–
Daughter of Davis, Benjamin	10	–	5	–
Son of Davis, Benjamin	8	–	5	–
Ditto - ditto	6	–	5	–
Daughter of Dunwell, William	8	–	5	–
Daughter of Dale, George	5	–	5	–
Ditto - ditto	3	–	5	–
Daughter of Dannatt, John H.	10	–	5	–
Ditto - ditto	8	–	5	–
Ditto - ditto	6	–	5	–
Son of Dyson, Robert	9	–	5	–
Daughter of Dyson, Robert	7	–	5	–
Son of Dyson, Robert	3	–	5	–
Ditto - ditto	2	–	5	–
Daughter of Davison, John	11	–	5	–
Ditto - ditto	9	–	5	–
Son of Ellis, John	13	–	5	–
Daughter of Elliott, Martin A.	13	1	4	–
Son of Ellis, Thomas	12	–	5	–
Daughter of Ellis, Thomas	9	–	5	–
Son of Fox, Robert	10	–	5	–
Son of Forth, Milburn	12	–	5	–
Daughter of Forth, Milburn	10	–	5	–
Daughter of Fell, Thomas	8	–	5	–
Daughter of Fox, Charles	9	1	9	–
Son of Fox, Charles	7			
Daughter of Farnill, William	11	–	5	–
Son of Fraser, William	12	–	5	–
Daughter of Fraser, William	10	–	5	–
Son of Fraser, William	5	–	5	–
Daughter of Fishwick, Thomas	13	1	4	–
Son of Groat, Henry	12	–	5	–
Daughter of Gask, William Jarvis	12	–	5	–
Son of Grime, Henry	12	1	4	–
Son of Griffiths, David	12	–	5	–
Son of Grubb, Thomas	11	1	4	–
Daughter of Gray, John H.	9	–	5	–
Son of Green, James	8	–	5	–
Daughter of Gibson, John N.	6	–	5	–
Son of Graham, John	10	2	13	–
Son of Good, John	13	2	2	–
Son of Goodhall, William	13	–	5	–
Daughter of Goodhall, William	11	–	5	–
Son of Goodhall, William	8	–	5	–
Daughter of Goodhall, William	4	–	5	–
Son of Goodhall, William	2	–	5	–
Son of Gillaspy, James	10	1	17	–
Ditto - ditto	7			
Ditto - ditto	4			
Daughter of Graham, William	2	–	5	–
Son of Gibson, John	5	–	5	–
Daughter of Gibson, John	3	–	5	–
Ditto - ditto	1	–	5	–
Daughter of Green, John	1	–	5	–
Ditto - ditto	–	–	5	–
(Born 22d July 1861, posthumous.)				
Son of Holdsworth, Thomas	12	–	5	–
Daughter of Hunter, Magnus	11	–	5	–
Daughter of Harrison, Thomas	13	–	5	–

rinity House of Kingston-upon-Hull—Out-Pensions, Quarterly—Children whose Pensions cease, &c.—***continued.***

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £.	s.	d.
ghter of Harrison, Joseph -	13	1	9	–
tto - ditto - -	8			
ghter of Harrison, William -	8	–	5	–
f Harrison, William - -	5	–	5	–
hter of Holmes, William -	8	–	5	–
to - ditto - -	6	–	5	–
hter of Horsman, John -	12	–	5	–
to - ditto - -	10	–	5	–
to - ditto - -	8	–	5	–
f Holmes, James - -	11	–	5	–
hter of Howard, John - -	12	–	5	–
to - ditto - -	9	–	5	–
f Howard, John - -	5	–	5	–
f Hiles, Stephen - - -	13	1	14	–
to - ditto - - -	9			
ter of Hiles, Stephen - -	7			
f Hawkins, William - -	8	–	5	–
ter of Hawkins, William -	5	–	5	–
ter of Hilton, Benjamin -	9	–	5	–
f Hilton, Benjamin - -	3	–	5	–
ter of Horsfield, Edwin -	10	1	4	–
ter of Jewitt, John - -	13	–	5	–
ter of Jenneson, Benjamin	9	–	5	–
Jenneson, Benjamin -	7	–	5	–
ter of Jackson, John -	12	–	5	–
Jackson, John - - -	10	–	5	–
ter of Jackson, John - -	8	–	5	–
Jackson, John - - -	6	–	5	–
o - ditto - - -	3	–	5	–
Jackson, Thomas - -	5	–	5	–
ter of Jackson, Thomas -	3	–	5	–
ter of Jewitt, William -	13	–	5	–
Jewitt, William - -	10	–	5	–
ter of Jewitt, William -	6	–	5	–
Jewitt, William - -	4	–	5	–
o - ditto - - -	1	–	5	–
ter of Irvine, Peter - -	11	–	5	–
o - ditto - -	8	–	5	–
ter of Johnson, jun., Richard	10	–	5	–
o - ditto - -	4	–	5	–
ter of Kitching, John -	13	1	9	–
o - ditto - -	12			
King, Francis - - -	7	–	5	–
o - ditto - - -	6	–	5	–
o - ditto - - -	4	–	5	–
ter of King, Francis - -	2	–	5	–
ter of Lankester, William -	13	–	5	–
ter of Longthorp, Robert -	13	–	5	–
Lazenby, John - -	13	–	5	–
o - ditto - - -	11	–	5	–
Lumley, William D. -	12	–	5	–
ter of Lumley, William D.	8	–	5	–
Leighton, Haram - -	6	–	5	–
ter of Lee, jun., Thomas -	12	–	5	–
Lee, jun., Thomas - -	6	–	5	–
ter of Loufbrough, William	10	–	5	–
Loufbrough, William -	5	–	5	–
o - ditto - -	3	–	5	–
Lucas, Samuel - - -	2	–	5	–
o - ditto - - -	1	–	5	–
ter of Lucas, Solomon -	12	1	4	–
er of Marshall, William R.	13	–	5	–
Moor, William - -	12	–	5	–
Meek, Richard - -	11	–	5	–
Matthews, Joseph - -	10	–	5	–
ter of Marshall, John -	12	–	5	–
ter of Maud, Joseph - -	13	2	9	6
- ditto - -	11			
ter of Northouse, Thomas -	5	–	5	–
ter of Nicholson, Robert -	4	2	2	–
Naylor, Samuel - -	11	–	5	–
- ditto - - -	10	–	5	–
- ditto - - -	7	–	5	–
Son of Naylor, Samuel - -	2	–	5	–
Daughter of Notman, William -	5	–	5	–
Son of Notman, William - -	9 months	–	5	–
Son of Oliver, James - -	13	1	4	–
Son of Overton, Edward - -	11	–	5	–
Son of Pepper, George - -	13	–	5	–
Son of Pincheon, Dawson - -	13	–	5	–
Son of Pantry, Edward - -	8	1	4	–
Daughter of Palfreman, Valentine	4	–	5	–
Daughter of Pincheon, George -	11	–	5	–
Son of Pelham, William P. -	13	–	5	–
Son of Pashby, James - -	7	–	5	–
Daughter of Pashby, James -	5	–	5	–
Ditto - ditto - -	3	–	5	–
Son of Pashby, James - -	–	–	5	–
(Born 27 March 1861, posthumous.)				
Son of Rickaby, George - -	13	–	5	–
Daughter of Robertson, Gilbert -	7	–	5	–
Son of Rhodes, Henry - -	11	1	4	–
Daughter of Ray, Matthew W. -	8	–	5	–
Son of Russell, Henry - -	4	–	5	–
Daughter of Rockett, Robert -	11	–	5	–
Daughter of Rands, George -	7	–	5	–
Son of Rands, George - -	5	–	5	–
Ditto - ditto - - -	3	–	5	–
Son of Redman, George - -	12	2	2	–
Son of Russell, Joseph - -	4	–	5	–
Ditto - ditto - - -	2	–	5	–
Ditto - ditto - - -	–	–	5	–
(Born 17 May 1861, posthumous.)				
Son of Rainsforth, William -	9	–	5	–
Ditto - ditto - -	4	–	5	–
Daughter of Rainsforth, William	1	–	5	–
Daughter of Steels, Robert -	13	–	5	–
Son of Steels, Robert - -	11	–	5	–
Son of Scholey, William A. -	11	–	5	–
Son of Stewart, James - -	10	2	2	–
Son of Sykes, John - - -	10	–	5	–
Daughter of Schofield, Charles -	13	–	5	–
Son of Shoreson, Henry - -	11	–	5	–
Ditto - ditto - - -	7	–	5	–
Daughter of Sharp, Henry -	3	–	5	–
Son of Scott, Edward A. - -	10	–	5	–
Ditto - ditto - - -	3	–	5	–
Son of Simpson, George - -	2	–	5	–
Daughter of Sykes, Joseph -	6	–	5	–
Son of Stokell, William - -	13	–	5	–
Daughter of Stokell, William -	10	–	5	–
Daughter of Shaw, Joseph -	12	–	5	–
Son of Shaw, Joseph - - -	10	–	5	–
Ditto - ditto - - -	9	–	5	–
Daughter of Shaw, Joseph -	5	–	5	–
Daughter of Stoker, William -	10	–	5	–
Daughter of Simpson, George -	13	–	5	–
Son of Spetch, George - -	3 months	–	5	–
Son of Savage, Charles - -	13	–	5	–
Daughter of Savage, Charles -	4	–	5	–
Daughter of Sanderson, John -	5	–	5	–
Son of Tasker, John Eden -	13	–	5	–
Daughter of Tomlinson, John -	12	–	5	–
Son of Taylor, Robert - -	10	–	5	–
Daughter of Taylor, Robert -	13	–	5	–
Ditto - ditto - -	10	–	5	–
Son of Titterton, John - -	12	–	5	–
Ditto - ditto - - -	10	–	5	–
Ditto - ditto - - -	8	–	5	–
Son of Turgoose, William - -	11	–	5	–
Ditto - ditto - -	8	–	5	–
Daughter of Thompson, William	11	–	5	–
Ditto - ditto - -	9	–	5	–
Son of Thompson, William -	5	–	5	–
Daughter of Tilley, Henry -	12	–	5	–

Trinity House of Kingston-upon-Hull—Out-Pensions, Quarterly—Children whose Pensions cease, &c.—*continued.*

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.
Son of Taylor, William	7	– 5 –	Son of Waterhouse, William	13	– 5 –
Daughter of Taylor, William	5	– 5 –	Daughter of Waterhouse, William	11	– 5 –
Daughter of Taylor, Joseph	12	– 5 –	Son of Wright, John	12	– 5 –
Son of Taylor, Joseph	10	– 5 –	Son of Watson, Thomas	13	– 5 –
Daughter of Todd, William	10	– 5 –	Daughter of Watson, Thomas	12	– 5 –
Son of Templeman, George	10	– 5 –	Son of Watson, Thomas	11	– 5 –
Daughter of Templeman, George	8	– 5 –	Daughter of Wells, Thomas	13	– 5 –
Son of Templeman, George	6	– 5 –	Ditto - ditto	9	– 5 –
Son of Templeman, H. St. Thomas	5	– 5 –	Son of Wells, Thomas	5	– 5 –
Daughter of Taylor, John	11	– 5 –	Daughter of Walker, John	13	– 5 –
Ditto - ditto	8	– 5 –	Daughter of Williams, Philip	10	– 5 –
Son of Tomlinson, Charles	11	} 1 14 –	Son of Williams, Philip	4	– 5 –
Daughter of Tomlinson, Charles	8		Son of Webb, Joseph	13	– 5 –
Ditto - ditto	5		Daughter of Wright, Richard	12	– 18 –
Son of Turnbull, James	12	– 5 –	Daughter of Walker, Richard	6	– 5 –
Daughter of Turnbull, James	10	– 5 –	Son of Walker, Richard	2	– 5 –
Son of Wharrie, Richard	13	1 4 –	Son of Whiting, William	12	– 5 –
Daughter of Watson, John	13	– 5 –	Daughter of Whiting, William	6	– 5 –
Son of Watson, John	11	– 5 –	Daughter of Wood, Joseph	13	} 1 9
Son of Ward, John	12	– 5 –	Ditto - ditto	9	
Ditto - ditto	11	– 5 –	Daughter of Whitton, William	12	– 5 –
Son of Watson, Joseph	11	– 5 –	Son of Whitton, William	11	– 5 –
Daughter of Wood, Joseph O.	11	– 5 –	Ditto - ditto	8	– 5 –
Daughter of Watson, George	12	– 5 –	Daughter of Wise, William B.	13	– 5 –
Daughter of Woodhall, Samuel	13	– 5 –	Ditto - ditto	11	– 5 –
Ditto - ditto	9	– 5 –			

Out-Pensions, Quarterly.—Children above 14 years of Age, who are unable to earn their Livelihood.

NAME OF PENSIONER.	Age.	Amount of Pension per Quarter. £. s. d.	NAME OF PENSIONER.	Age.	Amount of Pens per Qua £. s.
Daughter of Baren, Joseph	19	– 5 –	Daughter of McLaren, Peter	17	1 4
Son of Carter, John	26	1 4 –	Son of Peace, Samuel	28	1 4
Daughter of Clark, William	23	– 5 –	Daughter of Rhodes, Thomas	43	} 2 9
Daughter of Darby, John	49	1 4 –	Ditto - ditto	41	
Son of Elliott, Joseph	19	– 5 –	Son of Robinson, William	31	1 4
Son of Horracks, William, jun.	16	– 5 –	Son of Robinson, Bethel	40	– 5
Daughter of Hall, John	26	– 5 –	Daughter of Smith, James	20	– 5
Daughter of Holdsworth, George	16	– 5 –	Daughter of Spear, John	22	– 5
Daughter of Hines, John	45	– 5 –	Daughter of Sanderson, John	15	– 5
Daughter of Hill, Thomas	44	1 2 –	Daughter of Trotter, Joseph	46	1 4
Daughter of Kilvington, Francis	36	1 4 –	Son of Usher, Robert	38	– 5
Daughter of Lowther, Jeremiah	47	– 18 –	Son of Williamson, James	40	1 3
Son of Lonsdale, John	25	1 4 –			

Out-Pensions, Weekly.—Men with Wives.

The Wife's Name and Age are given in the List which next follows.

NAME OF PENSIONER.	Age.	Amount of Pension per Week. £. s. d.
Acaster, Joseph	75	– 7 –
Bilton, Walter	87	– 7 –
Tonge, William	65	– 7 –

Trinity House of Kingston-upon-Hull—continued.

A LIST of the WIVES of the Weekly OUT-PENSIONERS who had a vested Interest in the Funds of the Corporation prior to the 15th March 1861, showing the Name and Age, and the Amount of Pension to be paid to them, provided they survive their Husbands.

NAME OF PENSIONER.	Age.	Amount of Contingent Weekly Pension to Survivor.
		£. s. d.
Acaster, Jane	73	– 7 –
Bilton, Susannah	80	– 7 –
Tonge, Catharine	53	– 7 –

OUT-PENSIONS, WEEKLY.—SINGLE MEN.

NAME OF PENSIONER.	Age.	Amount of Pension per Week.
		£. s. d.
Twidale, Thomas	78	– 6 –
Wilson, Gowen	73	– 12 –

OUT-PENSIONS, WEEKLY.—WIDOWS.

NAME OF PENSIONER.	Age.	Amount of Pension per Week.	NAME OF PENSIONER.	Age.	Amount of Pension per Week.
		£. s. d.			£. s. d.
idow of Ashton, William	61	– 7 –	Widow of Dryden, James	81	– 12 –
,, Ansdell, James	41	– 7 –	,, Fea, John	56	– 7 –
,, Aires, John	66	– 12 –	,, Hunter, Thomas	46	– 7 –
,, Bennett, Robert	57	– 7 –	,, Jenkinson, William	82	– 7 –
,, Burton, Robert	87	– 7 –	,, Johnson, John	51	– 7 –
,, Brown, William	63	– 7 –	,, Jordan, Charles	51	– 7 –
,, Bailey, Thomas	90	– 6 –	,, Manger, William	69	– 7 –
,, Clifford, Francis	75	– 7 –	,, Tonge, John P.	52	– 7 –
,, Callender, E. G.	60	– 7 –	,, Tate, Jacob	54	– 7 –
,, Chambers, Henry	50	– 7 –	,, Wilson, William	80	– 7 –
,, Cross, William	72	– 6 –	,, Wilson, Thomas	68	– 6 –
,, Duckells, Joshua	80	– 7 –	,, Wilkinson, Robert	85	– 9 –
,, Dixon, Thomas	69	– 9 –			

OUT-PENSIONS, WEEKLY.—CHILDREN, whose Pensions cease on attaining the Age of Fourteen Years.

NAME OF PENSIONER.	Age.	Amount of Pension per Week.	NAME OF PENSIONER.	Age.	Amount of Pension per Week.
		£. s. d.			£. s. d.
n of Ansdell, James	13	– 1 –	Son of Ansdell, James	2	– 1 –
Ditto - ditto	11	– 1 –	Daughter of Hunter, Thomas	13	– 1 –
ughter of Ansdell, James	8	– 1 –	Daughter of Jordan, Charles	9	– 1 –
n of Ansdell, James	5	– 1 –	Son of Whiteley, John	11	– 8 –

UT-PENSIONS, WEEKLY.—CHILDREN above Fourteen Years of Age, who are unable to earn their Livelihood.

NAME OF PENSIONER.	Age.	Amount of Pension per Week.	NAME OF PENSIONER.	Age.	Amount of Pension per Week.
		£. s. d.			£. s. d.
ughter of Bennett, Peter	57	– 7 –	Daughter of Humphreys, R. W.	28	– 5 –
,, Bravender, William	44	– 7 –	,, Mason, Samuel	29	– 7 –
,, Heseltine, Thomas	57	– 7 –	,, Richardson, James	55	– 7 –

Trinity House of Kingston-upon-Hull.

EXTRACT from the CHARTER granted by King Charles the Second to the Guild or Brotherhood of Masters and Pilots Seamen of the Trinity House of Kingston-upon-Hull, 18 November 1660.

"AND our will and pleasure is that the said primage and whatsoever sumes of money due or hereafter to bee due and received and all other sume and sumes of money whatsoever due or hereafter to bee due and received for the said Guild or Brotherhood shall bee to the vse comoditie and profitt of the said Guild or Brotherhood aforesaid vnto and for the repayring of a certaine house or hall and almshouse in the towne aforesaid belonginge to the said Guild called the Trinity House and of a certaine chappell appertayning to the same edified and built by the predecessors of the masters and mariners of the towne aforesaid and for the findeing and reliefe of twenty-eight poore persons brethren of the said Guild or Brotherhood or their widdowes which are fallen into poverty or need or by misfortune shall chance hereafter to come to poverty And alsoe for the reliefe of other poore mariners and seamen and their widdowes such as by them and their successors after them shall bee thought meete and necessary therewith to be relieved which money for primage and other sumes of money by them received or by them and their successors hereafter to bee received to the vse of the said Guild or Brotherhood itt shall bee lawfull for them the said wardens the elder and younger brothers and their successors To hold and possesse for ever to the vses aforesaid without accompt or anything therefore to vs our heires or successors to bee yielded paid or done and without any molestacon or trouble by any invented cullour or device by any person or persons either of the said towne of Kingston-upon-Hull or of any other place to bee practised against the said wardens elder and younger brothers masters and pylott seamen and mariners of the said Guild or any of them by any meanes concerninge the same."

RULES and REGULATIONS for granting Pensions, established by the Corporation of the Trinity House in Kingston-upon-Hull.

General Rules.

Interpretation of terms: "The Port."

1. In interpreting these Rules, the following terms shall have the respective meanings hereinafter assigned to them, that is to say, "The Port," shall be understood to include "the port of Kingston-upon Hull, and also the ports of Grimsby, Goole, and Gainsborough, and all other ports and places within the ancient limits and liberties of the port of Kingston-upon-Hull."

"Seamen of 1st class."

2. "Seamen of the First Class" shall include "masters, mates, seamen, carpenters, and sailmakers, who may fall into poverty or need, or who by age, wounds, sickness, infirmity, or accidental misfortune, may become wholly incapacitated from following the sea service."

"Seamen of 2d class."

3. "Seamen of the Second Class" shall include "engineers, coopers, firemen, and stewards, who, after a more lengthened period of service at sea than seamen of the First Class, may fall into poverty or need, or who by age, wounds, sickness, infirmity, or accidental misfortune, may become wholly incapacitated from following the sea service."

"Ships belonging to the port."

4. "Ships belonging to the Port" shall include "every description of vessel used in navigation, registered at the port of Kingston-upon-Hull, or at any port or place within the ancient limits and liberties thereof, and clearing at any Custom-house within such limits, and whether trading foreign or coastwise."

Grant of Pensions.

Service—1st Class.

5. Every applicant of the First Class must prove a service at sea in ships belonging to the port for a period of 60 months.

2d Class.

6. Every applicant of the Second Class must prove a service at sea in ships belonging to the port for a period of 120 months.

Character.

7. Every applicant must be of good character, unable to earn his or her livelihood, and be a proper object of charity.

Age.

8. Seamen are not eligible to receive a pension until they have attained the age of 60 years, unless they are wholly incapable of service by sickness or infirmity.

Widow and child.

9. A widow can only obtain a pension through the title of her husband, and a child through its father; and in establishing a claim for the pension of a widow or child the same facts must be proved as the husband or father would have been required to prove.

Widows' age.

10. Widows without a child or children under the age of 14 years are not eligible to receive a pension until they have attained the age of 55 years, unless they are, by extreme infirmity, rendered wholly incapable of earning a livelihood.

11. Widows

Trinity House of Kingston-upon-Hull.

11. Widows with a child or children under the age of 14 years are eligible, on the death of their husbands, to receive the highest rate of pension to which their husbands would have been entitled, until such child or all such children attain the age of 14 years, upon which event such widows, if then under 55 years of age, to go upon the lowest rate in the same scale of pension of the same class as their deceased husbands, until they attain that age. Widows with children.

12. No applicant of the First Class is entitled to a pension if he shall have been serving on board of ships not belonging to the port for 48 months immediately preceding his application, unless he shall gain a re-qualification by serving for 24 months on board of ships belonging to the port. Serving from other ports: 1st Class.

13. No applicant of the Second Class is entitled to a pension if he shall have been serving on board of ships not belonging to the port for 24 months immediately preceding his application, unless he shall gain a re-qualification by serving for 48 months on board of ships belonging to the port. 2d Class.

14. That if any applicant shall be proved to have been guilty of desertion from his ship, 12 months shall be deducted for every act of desertion, in calculating the period of his service out of the port. Desertion.

15. No applicant is eligible if he shall have quitted the sea service and engaged in any other mode of obtaining a livelihood—in the case of applicants of the First Class, when under 45 years of age; and in the case of applicants of the Second Class, when under 50 years of age, unless he shall gain a re-qualification by serving in ships belonging to the port for 48 months. Quitting the sea service.

This Rule shall not operate to the prejudice of any applicant who may have quitted the sea service under the ages above-mentioned, in consequence of any accident sustained while employed in the sea service, or by reason of any injury or infirmity whereby he may have become incapable of following the sea service, and who has not applied for relief, or has been considered able to earn his livelihood until a more advanced period of life. Through accident.

16. Service in Her Majesty's navy shall not operate as a disqualification, if the applicant shall be otherwise duly qualified. Service in Navy.

17. Applicants who have been employed in the service of the floating light vessels in the Humber, or of the lifeboat at Spurn, may add the time they have been so employed to the time of their service at sea in ships belonging to the port, provided such service shall not be less than 36 months. In buoyage department.

18. No applicant who has been broken or disfranchised as a pilot shall be eligible to receive relief, unless he gains a re-qualification by serving in ships belonging to the port for 36 months. Dismissed pilots.

19. No in-pensioner of Greenwich Hospital, or any other public charity or hospital whatever, is eligible to receive a pension. Inmates of other hospitals.

20. Pensioners who may be afflicted with insanity, and removed to an asylum, may have the amount of their pensions allowed for their maintenance. Inmates of asylums.

21. Wives or children, whose husbands or fathers may have deserted them, are eligible to be admitted to a pension after two years from the time of such desertion. Deserted wives or children.

22. The widow of a pensioner married to him after his admission to a pension, shall be ineligible to a pension on his decease. Women married to pensioners.

23. Orphan children, and children whose mothers have forfeited their pensions, are eligible to pensions. Orphan children.

24. No pension will be allowed to the child of any seaman born after the expiration of one year from the time such seaman shall have quitted the sea service. Children of men who have quitted the service.

25. No pension will be granted or continued to any person possessed of a permanent annual income exceeding the amount hereunder specified for each class:— Disqualification by income.

	£.	*s.*	*d.*
Masters	35	–	–
Masters of coasting ships and mates and chief engineers of oversea ships	20	–	–
Other classes of seamen	15	–	–

Younger Brethren.

26. A permanent annual income of 45 *l.* shall disqualify a younger brother, or his widow or child, for a pension, except in cases mentioned in Rule 28. Disqualification by income.

27. When the income does not amount to 45 *l.* per annum, an additional allowance of one shilling per week for each child under 14 years of age shall be made. Allowance for children.

Trinity House of Kingston-upon-Hull.

28. In cases where the income does exceed 45*l.* per annum, a pension may be granted, provided the number of children of the younger brother shall not be less, and the amount of income shall not be more than are hereunder specified, viz. :—

Exceptions as to income.

Number of Children.	Income.
	£.
1 or more children under 14 years of age	Amounting to but not exceeding - 50
3 Ditto - - - ditto - -	ditto - - - ditto - 55

Branch to be given up.

29. The widow or family of a deceased younger brother shall not be entitled to a pension until his branch is delivered up to be cancelled.

Form of Application for Pension and Evidence in Support.

Forms.

30. Every applicant for a pension must fill up one of the printed forms for the purpose, agreeably to the directions contained therein.

Widow's claim.

31. The widow of a pensioner must represent her own claim, and not rest it upon the mere fact of her being the widow of a pensioner. The claims of a widow and her children may be included in the same form.

Quarterly out-pensions.

Rate of Quarterly Pensions.

32. Masters of Oversea Ships and their Widows.

Term of Service.	Pension.
	£. s. d.
Under 2 years - - - - - - - -	1 18 –
2 years and under 5 years - - - - - -	2 2 –
5 „ „ 10 „ - - - - - -	2 8 –
10 „ „ 15 „ - - - - - -	3 – –
15 „ and upwards „ - - - - - -	3 12 –

33. Masters of Coasting Ships, and Mates, and Chief Engineers of Oversea Ships, and their Widows.

Term of Service.	Pension.	
	Masters and Mates.	Chief Engineers.
	£. s. d.	£. s. d.
2 years and under 5 years - - - -	1 7 –	—
5 „ „ 10 „ - - - -	1 12 –	—
10 „ „ 15 „ - - - -	1 16 –	1 16 –
15 „ and upwards - - - - -	2 – –	2 – –

34. Mates of Coasting Ships and Seamen, Carpenters and Sailmakers, Engineers, Coopers, Firemen, and Stewards of Oversea and Coasting Ships, and their Widows.

Term of Service.	Pension.	
	Mates, Seamen, Carpenters, and Sailmakers.	Engineers, Coopers, Firemen, and Stewards.
	£. s. d.	£. s. d.
5 years and under 10 - - - - -	– 18 –	—
10 „ „ 15 - - - - -	1 2 –	1 2 –
15 „ „ 20 - - - - -	1 7 –	1 7 –
20 „ and upwards - - - - -	1 12 –	1 12 –

35. And

35. And in addition to the foregoing pensions respectively, a further allowance of 5 *s.* for each child under the age of 14 years. *Trinity House of Kingston-upon-Hull.*

36. Orphan Children. Quarterly out-Pensions.

Number of Children.	Of Masters of Oversea Ships.	Of other Seamen than Masters of Oversea Ships.
	£. s. d.	£. s. d.
One - - - - - - - -	2 2 –	1 4 –
And for each additional child - -	– 7 6	– 5 –

Extra Allowances to Quarterly Pensioners. Extra allowances in winter.

37. To each quarterly pensioner resident in the town or neighbourhood annually in the week next before Christmas Day, and also occasionally during the winter season, an allowance of two bags of coals, together with the sum of 5 *s.*

38. To each quarterly pensioner resident in the country annually in the month of December, in lieu of the above allowances, a money payment of 1 *l.*

Rate of Out-Pension to Younger Brethren. Out-pensions to Younger Brethren.

39. To a younger brother, or the widow of a younger brother, 7 *s.* per week.
And for each child under 14 years of age, 1 *s.* per week.

Extra Allowances to the various Classes of Pensioners. Extra allowances to maimed and aged.

40. To each pensioner who has been deprived of his eyesight, or lost an arm or leg in the sea service, a further allowance of 1 *s.* 6 *d.* per week.

41. To each pensioner on attaining the age of 70 years, a further allowance of 2 *s.* 6 *d.* per week.

42. *Rate of Allowance to Seamen Shipwrecked in Vessels belonging to the Port.* Shipwrecked seamen.

	Masters.	Mates and Chief Engineers.	All other Classes of Seamen.
	£. s. d.	£. s. d.	£. s. d.
Oversea Ships - - -	5 – –	2 10 –	1 5 –
Coasting Ships - - -	2 10 –	- - - -	1 – –

Weekly Temporary Allowances. Temporary allowances.

Rate to be granted weekly by the Warden or his Deputy.

	Per Week. s. d.
43. To a younger brother and his wife - - - - - -	5 –
To a younger brother, or his widow - - - - - -	3 6
With a further allowance for each child under 14 years of age -	1 –
Oversea Traders.	
44. To a master and his wife (not a younger brother) - - -	3 6
To a master, or the widow of a master - - - - -	2 6
To each child under the age of 14 years - - - - -	1 –
Coasting Traders.	
45. To a master and his wife - - - - - - - -	2 6
To a master, or the widow of a master - - - - -	2 –
To each child under 14 years of age - - - - - -	1 –

Trinity House of Kingston-upon-Hull.

Temporary allowances.

To all other Classes, viz.:—	s.	d.
46. To a seaman and his wife	2	—
To a seaman, or the widow of a seaman	1	6
To each child under the age of 14 years	—	6

47. To the Wives and Children of Seamen left sick or shipwrecked abroad, viz.:—

To a younger brother's wife	3	6
And for each child under 14 years of age	1	—
To a master's wife	2	6
And for each child under 14 years of age	1	—
To the wives of all other classes of seamen	1	6
And for each child under 14 years of age	—	6

Motherless children.

48. The motherless children of such seamen as are left sick or shipwrecked abroad, to have in addition the allowance also which the mother would have been entitled to if living.

Report of surgeon.

49. In order to prevent imposition by persons applying for temporary relief, in consequence of sickness, wounds, or other infirmities, the warden or his deputy shall, if he think fit, employ the house's surgeon to examine and report upon the cases.

Payment of Quarterly Pensioners.

Masters and widows. Other classes.

50. Masters and their widows are paid at 10 o'clock in the forenoon of the Thursday next after each quarter day; and all other classes at 12 o'clock at noon on each quarter day.

Distribution of coals.

51. On the occasional distribution in the winter season of coals and money, tickets for such coals and money are delivered to all masters and their widows in the forenoon of the day appointed for such distribution, and to all other classes of seamen and their widows in the afternoon of the same day.

Pensioners failing to attend.

52. Quarterly pensioners who, by reason of absence from the town, infirmity, or sickness, cannot personally attend at the house at the time appointed, must send a written certificate of some medical practitioner or respectable householder as to the true cause of non-attendance, on pain of forfeiting the quarter's pension.

Commutation of Pensions.

Emigration.

53. A pension may be commuted with the consent of the Board, for the purpose of raising money to enable the pensioner to emigrate.

Scale of commutation.

54. The following scale will be allowed, if the circumstances of the claim are approved by the Board:—

Widows,		Children,	
From 20 to 25 years of age,	2 years pension.	From 1 to 3 years of age,	2 years' pension.
„ 26 to 30 „	3 „ „	„ 4 to 6 „	3 „ „
„ 31 to 35 „	4 „ „	„ 7 to 10 „	2 „ „
„ 36 to 50 „	5 „ „	„ 11 to 12 „	1 „ „
„ 51 to 55 „	4 „ „		
„ 56 to 60 „	3 „ „		
„ 61 and upwards	2 „ „		

Suspension, Forfeiture, or Termination of Pensions.

By going to sea.

55. If a pensioner go to sea after having had a pension granted to him, he must previously report the fact to the warden's clerk, and his pension shall cease; but he may apply to be restored to the pension list, should he again become disabled or be obliged to quit the service on account of age or infirmities. And any pensioner failing to report his going to sea, as above required, and continuing to receive his pension, will be liable to forfeit the same.

Entering workhouse.

56. If a pensioner enter a parish workhouse, his pension is to be suspended.

Refusal of room.

57. No pension will be continued to anyone who, on attaining the age prescribed for admission into the almshouses, shall refuse to accept and reside in the room allotted to him, unless for some urgent and sufficient cause to be allowed by the Board.

Widow re-marrying.

58. A widow re-marrying shall cease to be a pensioner.

Children attaining 14 years.

59. When children attain the age of 14, their pensions are to cease, unless they shall be afflicted with extreme infirmity wholly disabling them from earning a livelihood.

60. If

Trinity House of Kingston-upon-Hull.

60. If a pensioner be convicted of felony, his or her pension shall be forfeited. If a pensioner be guilty of an attempt at fraudulent personation, or make any fraudulent representation for the purpose of obtaining relief, his or her pension will be liable to forfeiture. Conviction for felony.

61. If any pensioner be guilty of violent, insolent, or insubordinate conduct towards the persons employed in paying the pensions, or appear in a state of intoxication at the time of payment, or be guilty of giving a false address, or of any other offence of a fraudulent or disgraceful nature, he will be liable to be punished by the suspension either of a part or the whole of his pension, as the offence may appear to deserve, in addition to any other punishment which may be inflicted by law for the offence. Insolent conduct.

62. Pensioners not applying for payment of their pensions for a period of 15 months, will be struck off the books. Non-application for pension.

Almshouses.

Rules to be observed in the disposal of Rooms.

63. No one of the following classes of persons shall be admitted to or continue in any of the almshouses, who may be or become possessed of an annual income, exceeding the amount hereunder specified for each class, viz.:— Disqualification by income.

	£.
Younger brethren	30
Masters	25
All other classes of seamen	12

64. Younger brethren and masters are not eligible to be admitted until they have attained the age of 60 years, and, if married, their wives must have attained the age of 55 years. Age for admission. Younger Brethren and Masters.

65. The widows of younger brethren and masters are not eligible until they have attained the age of 55 years. Their widows.

66. Mates, engineers, and all other classes of seamen, are not eligible until they have attained the age of 65 years, and, if married, their wives must have attained the age of 55 years. And the widows of such are not eligible until they have attained the age of 65 years; but the widow of any seaman who may have been resident with her husband at the time of his death in any of the almshouses, is eligible to admission into one of the removal rooms, notwithstanding she may not at the time have attained the age of 65 years. Other classes.

67. A master is not eligible to be admitted as such, who has not actually sailed or served as master in oversea traders for the period of five years. Service of master.

68. Any out-pensioner who shall marry, being at the time of such marriage, or having previously been in receipt of a permanent weekly or quarterly pension, shall be ineligible for admission to a room in an almshouse during the life of his wife, unless after such marriage he shall have sailed or served on board of ships belonging to the port for 24 months. Out-pensioner marrying.

Pensions to In-Pensioners.

In-pensions.

	Per Week. £.	s.	d.
69. To a younger brother and his wife	–	15	–
To a younger brother	–	11	–
To a younger brother's widow	–	11	–
70. To a master of an oversea ship, and his wife	–	12	–
To a master or the widow of a master of an oversea ship	–	9	–
71. To a master of a coasting ship, and to a mate or chief engineer of an oversea ship, and wife	–	10	–
To a master of a coasting ship, and to a mate or chief engineer of an oversea ship, or to a widow of any one of the last-named classes	–	7	–

To all other Classes of Seamen, viz:—

72. To a seaman and his wife	–	9	–
To a seaman, or the widow of a seaman	–	6	–

73. The allowance of coals is one bag to each room weekly during the summer months (6th April to 11th October), and one bag and a half to each room weekly during the winter months (11th October to 6th April). Coals.

Trinity House of Kingston-upon-Hull.

Rules for the Observance and Government of the Pensioners in the various Almshouses.

Irregularity of behaviour.

74. That every pensioner who shall not behave with decency, order, and decorum, as well towards the master or matron, as towards all his or her fellow pensioners, or who shall be guilty of drunkenness, disorderly conduct, or other irregularity of behaviour, shall on proof thereof, forfeit his or her weekly pay, or such part thereof, for such period of time as the Board shall adjudge.

Attendance at chapel.

75. That every pensioner, not prevented by sickness or infirmity, nor excused for reasonable cause to be allowed by the warden, who shall not attend Divine Service in the chapel of the Trinity House on the days and at the times appointed for the purpose, shall forfeit one week's pay, or such portion thereof as the warden shall adjudge.

Payment of pensions.

76. That the pensioners be paid every Friday at the Trinity House, their weekly pensions, in such manner as the warden's clerk shall direct.

Lodging out.

77. That every pensioner who shall lodge out of his or her room on any account or pretence whatever, without leave for the purpose first obtained from the warden, shall have his or her weekly pension suspended, and not again restored without an order from the Board.

Permitting persons to reside in room.

78. That every pensioner who shall suffer his or her children, relations, or other persons, to sleep or reside with him or her (except those whose age or infirmities requiring occasional or constant attendance, shall have obtained leave from the warden for the purpose), or shall allow such children, relations, or other persons by two frequent intrusions, or improper behaviour, to occasion any annoyance, disturbance, or irregularity in the almshouse, shall have his or her weekly pension suspended during the pleasure of the Board.

Not in before 10 p.m.

79. That every pensioner who shall not be in the almshouse by 10 o'clock at night shall forfeit one week's pension, or such portion thereof as the Board shall direct.

Lights to be extinguished.

80. That every pensioner shall extinguish his or her fire and lights every night by half-past 10 o'clock (cases of illness excepted).

Washing.

81. That every pensioner who shall wash or dry any other clothes than his or her own in any of the almshouses, or in the yards or grounds thereof, or shall throw out, deposit, or lay any ashes, bones, dirt, soil, foul water, or rubbish, or commit any nuisance in the passages, yards, or grounds thereof, or in the street adjoining, shall for every offence forfeit one week's pension, or such portion thereof as the warden shall adjudge.

Power to expel.

82. That in addition to the above penalties, the Board expressly reserve as a condition of granting admission to every room in any of the almshouses the full right and authority to expel and put out of the same, any pensioner who shall be found guilty of infraction of any of these rules, or for any just cause whatever.

Doors to be locked.

83. That the master or matron of each almshouse shall see that all the outer doors and gates thereof are properly locked every night at 10 o'clock, and shall keep and retain the keys thereof in his or her custody, and not allow such doors and gates to be again opened during the night, unless in cases of urgent necessity.

Master or matron to report.

84. That any master or matron who shall not vigilantly superintend and oversee a full compliance with the above rules, or who shall not promptly report to the acting warden every breach or infraction thereof by any of the pensioners, shall, on proof thereof, be suspended or expelled from his or her situation as the Board may direct.

TRINITY HOUSE OF NEWCASTLE-ON-TYNE.

Trinity House of Newcastle-on-Tyne.

Trinity House, Newcastle,
19 April 1862.

Sir,

I am instructed to transmit the enclosed account to you, showing the list of pensioners, and which includes all those who have a vested interest.

You will perceive that in addition other persons may have a claim to pensions, which depends upon circumstances which may or may not arise; the description of persons who may so become entitled is mentioned in the return, but it is impracticable to transmit the names of all such persons; for instance, children may have such claim, and yet the Board at present have no knowledge of their names, or ages.

I am, &c.
(signed) *John Currie*, Secretary.

T. H. Farrer, Esq.,
London.

List of Annual Pensions paid by the Corporation of the Trinity House of *Newcastle-on-Tyne* and granted prior to the 15th of March 1861, which are payable during the lives of the Parties.

Out-Pensioners of the First Class.

No.	Names.	Age.	Address.	£.	s.	d.
1	Sarah Fenwick	81	Oringham, Newcastle	9	–	–
2	Elizabeth Pegg	89	Tynemouth	9	–	–
3	— Stephenson	65	North Road, Newcastle	9	–	–
4	Jane Marshall	78	Leith	9	–	–
5	Margaret Dixon	75	North Shields	9	–	–
6	Elizabeth May	64	North Shields	9	–	–
7	— Holliday	–	—	—		
8	Mary Humble	63	North Shields	9	–	–
9	Louisa Rayner	55	Edinburgh	9	–	–
10	— Whitehead	82	—	—		
11	Margaret Frazer	78	North Shields	9	–	–
12	Mary Watson	82	Newcastle	9	–	–
13	Ann Thompson	63	Newcastle	9	–	–
14	Jane Copeland	60	North Shields	9	–	–
15	— Teasdale (dead)	–	London	9	–	–
16	Sarah Deward	58	Rotherhithe, London	9	–	–
17	Mary Smith Lowrey	62	Kingsland	9	–	–
18	Jane Dunlop	52	—	—		
19	Jane Gibb	70	St. Pancras, London	9	–	–
20	Margaret Laing	57	Australia, Melbourne	9	–	–
21	Sarah Slater	57	Newcastle	9	–	–
22	Mary Ann Thursby	53	North Shields	9	–	–
23	Edward Francks	73	North Shields	9	–	–
24	Jane Rogers	56	Wallsend	9	–	–
25	Jane Scott	66	Mile End, London	9	–	–
26	Jane Griggs	76	North Shields	9	–	–
27	Jane Eden	74	North Shields	9	–	–
28	Sarah Benson	67	Stratford, Essex	9	–	–
29	Elizabeth Mather	59	Newcastle	9	–	–
30	Jane Hodge	53	Seaham Harbour	9	–	–
31	Sarah Cocks	45	Redditch, Worcestershire	9	–	–
32	Ann Peacock	74	Ratcliffe, London	9	–	–
33	Mary Bainbridge	45	Kennington	9	–	–
34	Mary Wilkin	48	South Shields	9	–	–
35	Jane Reveley	53	North Shields	9	–	–
36	Dorothy Wheatley	55	North Shields	9	–	–
37	James Mickle	78	North Shields	9	–	–
38	Dorothy Copeland	66	London	9	–	–
39	Henry Marshall	74	London	9	–	–
40	Thomas Coulson	77	Newcastle	9	–	–
41	Jane Watson	55	North Shields	9	–	–
42	Jane Rennoldson	45	Middlesbro'	9	–	–
43	Thomas Baker and two children	57	Percy Main	13	–	–
44	Isabella Thompson	50	Hull	9	–	–

Trinity House of Newcastle-on-Tyne.

Out-Pensioners of the First Class—*continued.*

NO.	NAMES.	AGE.	ADDRESS.	£.	s.	d.
45	Joseph Hall	49	Newcastle	9	–	–
46	Susan Fairbarn	70	South Shields	9	–	–
47	Dorothy Ridley, two children	43	Newcastle	13	–	–
48	Jane Hunter, one child	57	North Shields	11	–	–
49	Margaret Thompson & one child	49	South Shields	11	–	–
50	Margaret Brown	39	Newcastle	9	–	–
51	Ann Armstrong	62	North Shields	9	–	–
52	Elizabeth Hodge	46	Witham, Essex	9	–	–
53	Margaret Cleugh, one child	40	North Shields	11	–	–
54	Amelia Griggs and one child	34	Newcastle	11	–	–
55	Henry Dixon	64	Howden	9	–	–
56	Mary Ann Couts, one child	58	–	11	–	–
57	William Maxwell	60	Newcastle	9	–	–
58	Isabella Harrison, two children	41	Newcastle	13	–	–
59	Ann Cuthbertson	44	North Shields	9	–	–
60	Elizabeth Scott	55	North Shields	9	–	–
61	Andrew Riddell	55	Aberystwith	9	–	–
62	Thomas Brown	45	Newcastle	9	–	–
63	Mary Ann Coats	58	South Shields	9	–	–

List of Annual Pensions paid by the Corporation of the Trinity House, *Newcastle-on-Tyne*, granted prior to the 15th March 1861, and which are payable during the lives of the Parties.

Out-Pensioners of the Second Class.

NO.	NAMES.	AGE.	ADDRESS.	£.	s.	d.
1	Barbara Shotton	68	Portsea	7	–	–
2	Elizabeth Snaith	68	Derwenthaugh, Newcastle	7	–	–
3	Isabella Tayler	65	Tinmouth	7	–	–
4	Mary Love	50	North Shields	7	–	–
5	Elizabeth Eddie	72	Wallsend	7	–	–
6	Mary Macintosh	73	North Shields	7	–	–
7	Elizabeth Stephenson and one child.	51	South Shields	9	–	–
8	William Symmons	75	Newcastle	7	–	–
9	Sarah Cuthbertson	48	North Shields	9	–	–
10	Mark Newby	–	Yorkshire	7	–	–
11	Mary Kelly	64	Newcastle	7	–	–
12	Henry Thwaites and one child	–	North Shields	9	–	–
13	Elizabeth Tibbles and two children.	44	Portsea	13	–	–
14	Jane Walker	80	Newcastle	7	–	–
15	Matthew Brown	63	Newcastle	7	–	–
16	Katherine Storey and four children.	45	North Shields	15	–	–
17	Margaret Reynolds and one child.	33	North Shields	9	–	–
18	Jane Blakey	40	Wittington, near North Shields	9	–	–
19	James Walker	43	Newcastle	7	–	–
20	Robert Anderson	56	Newcastle	7	–	–
21	John Armstrong	57	Newcastle	7	–	–
22	Thomas Young	95	Newcastle	15	12	–

Trinity House of Newcastle-on-Tyne.

List of Pensions paid by the Corporation of the Trinity House of *Newcastle-on-Tyne*, granted prior to the 15th March 1861, and payable during the lives of the parties.

In-Pensioners at Newcastle-on-Tyne.

No.	Names.	Age.	£.	s.	d.	No.	Names.	Age.	£.	s.	d.
1	William Blakey	65	23	8	–	15	Robert Anderson	57	23	8	–
2	William Miller	64	23	8	–	16	Mary Chipchase	75	20	16	–
3	Andrew Proud	45	23	8	–	17	Jane Waters	66	20	16	–
4	Isaac Moralee	78	23	8	–	18	Jane Robson	68	20	16	–
5	Joseph Reed	63	23	8	–	19	Hannah Emley	78	20	16	–
6	Thomas Stawport	71	23	8	–	20	Ellen Purvis	46	20	16	–
7	Edward Logan	75	23	8	–	21	Mary Jackson	62	20	16	–
8	Joseph James Nixon	75	23	8	–	22	Elizabeth Henzell	75	20	16	–
9	George Robson	63	23	8	–	23	Mary Young	68	20	16	–
10	Robert Armstrong	77	23	8	–	24	Mary Ridley	62	20	16	–
11	William Blackett	61	23	8	–	25	Margaret Rennoldson	55	20	16	–
12	Thomas Nixon	53	23	8	–	26	Katherine Hudspith	66	20	16	–
13	William Maxwell	60	23	8	–	27	Jane Fletcher	62	20	16	–
14	Wm. Wilson Robson	83	23	8	–	28	Isabella Archer	78	20	16	–

In addition to their pecuniary allowances, the in-pensioners live in houses belonging to and kept in repair by the Trinity House. They have coals, gas, water, and clothing provided for them, at the expense of the Trinity House. A medical attendant is retained, and also a chaplain by the Trinity House. They are provided with medicines and all sorts of medical comforts, there is a matron to look after the old women, and both day and night nurses for those whose age or infirmities require them.

List of Pensions paid by the Corporation of the Trinity House of *Newcastle-on-Tyne*, granted prior to the 15th March 1861, which are payable during the lives of the parties.

Elder Brethren and Widows of Elder Brethren.

No.	Names.	Age.	Address.	£.	s.	d.
1	Hannah Burnet	–	Alnwick	40	–	–
2	Sarah Blackett	–	Stockbury, Kent	30	–	–
3	Dorothy Gibson	88	Morpeth	50	–	–
4	Elizabeth Smith	77	Newcastle	50	–	–
5	Sophia Carr	66	Ditto	50	–	–
6	Jane Gray	56	Ditto	40	–	–
7	Agnes Carr and six Children	39	Caen, France	54	–	–
8	Joseph French	90	North Shields	105	–	–
9	Richard Day	71	Ditto	90	–	–

In addition to the above pensions in which the parties have a vested interest, the widow and children of each elder and younger brother (until they arrive at the age of 14 years) are entitled on the death of her husband to a pension varying in amount according to the time the deceased brother has sat at the Board.

The elder and younger members of the Board, and those that have been elder and younger members, when incapacitated by age or any other cause, are entitled to retiring pensions.

These inchoate rights are secured by a bye-law of the House (a copy of which is herewith transmitted), and are recognised by the late Act of Parliament.

Trinity House of Newcastle-on-Tyne.

List of Pensions paid by the Corporation of the Trinity House of *Newcastle-on-Tyne*, granted prior to the 15th March 1861, which are payable during the lives of the parties.

Younger Brethren and Widows of Younger Brethren.

No.	Names.	Age.	Address.	£.	s.	d.
1	Elizabeth Ayre	50	Edinburgh	20	–	–
2	Mentor Wilkinson	68	Emsworth, Hants	20	–	–
3	Robert Oliver	67	Blyth	13	–	–

List of Pensioners paid by the Corporation of the Trinity House of *Newcastle-on-Tyne*, granted prior to the 15th March 1861, and which are payable during the lives of the parties.

In-pensioners at North Shields.

No.	Names.	Age.	Address.	£.	s.	d.
1	James Thwaites	84	North Shields	26	–	–
2	Michael Wilson	76		23	8	–
3	Andrew Dawson	57		23	8	–
4	Margaret Christy	83		23	8	–
5	Sarah Cuthbertson	84		23	8	–
6	Sarah Copeland	63		23	8	–

The In-pensioners at North Shields have the same allowances and advantages provided for them by the Trinity House, as the In-pensioners at Newcastle have.

List of Pensions paid prior to the 15th March 1861, from the funds of the Trinity House of *Newcastle-on-Tyne*, to sundry Pilots at Ports that have little or no funds of their own.

Names.	Age.	Port.	£.	s.	d.
John Hall	—	Tees	—		
Matthew Coverdale	—	Ditto	—		
John Denny	—	Ditto	—		
Slater Potts	—	Ditto	—		
William Burwick	—	Ditto	—		
Thomas Scott	62	Sunderland	6	–	–
William Thompson	86	Ditto	6	–	–
Burton Brown	83	Ditto	6	–	–
George Wilson	74	Ditto	6	–	–
George Welch	74	Ditto	6	–	–
William Watson, senr.	71	Ditto	6	–	–
David Richardson	82	Ditto	6	–	–
Robert Campbell	75	Ditto	6	–	–
Robinson Carter	68	Ditto	6	–	–
William Watson, junr.	54	Ditto	6	–	–
Jackson Noble	60	Whitby	6	–	–
Robert Wilson	59	Ditto	3	–	–

Trinity House of Newcastle-on-Tyne.

EXTRACT from the Minutes of the Board, Trinity House, *Newcastle-on-Tyne*, 2 April 1855.

Ordered, At a Board held this day, it was ordered that in future any elder brother petitioning for, and being allowed to be placed upon, the out-pension list of this house, either from infirmity, old age, or other causes, shall be entitled to an annual pension of 50 *l.*; if he shall have sat at the Board five years, he shall receive 60 *l.* per annum; if he shall have sat 10 years at the Board, he shall be entitled to 75 *l.* per annum.

Ordered, Any younger brother petitioning for, and being allowed to be placed on, the out-pension list of this house, either from infirmity or other cause, shall be entitled to an annual pension of 15 *l.* per annum; if he shall have sat at the Board as a younger brother for five years, he shall have 20 *l.*; and if for 10 years, he shall have 30 *l.* per annum as a pension.

Ordered, That any widow of an elder brother of this house petitioning for, and being allowed to be placed upon, the out-pension list of this house, either from infirmity or any other cause, and whose husband shall have sat at the Board, to receive 30 *l.* per annum; but if he shall have sat at the Board five years, to have 40 *l.*; and if he has sat 10 years to have 50 *l.* per annum.

Ordered, That any widow of a younger brother petitioning the Board, and being allowed to be placed upon the out-pension list of this house, either from infirmity or any other cause, whose husband shall have sat at the Board as a younger brother, shall be entitled to 12 *l.* per annum; but if he shall have sat for five years, she shall have 15 *l.*; and if for 10 years, 20 *l.* per annum.

Ordered, That the children of elder brethren, when orphans, shall have 4 *l.* per annum until they are 14 years of age.

Ordered, That the children of younger brethren shall have 3 *l.* per annum until they are 14 years of age.

Ordered, That in future the male in-pensioners shall have 9 *s.* per week; and the female in-pensioners 8 *s.* per week.

FRATERNITY OF THE HOSTMEN OF NEWCASTLE-UPON-TYNE.

(24 & 25 Vict. c. 47, s. 9.)

Fraternity of Hostmen of Newcastle-on-Tyne.

Sir, Newcastle, 31 March 1862.

I BEG to enclose a list of pensions made out in pursuance of the above referred-to statute, and to apologise for the delay in sending it.

I have, &c.
(signed) *Henry Ingledew*,
Clerk of the Company.

The Secretary,
Marine Department, Board of Trade,
Whitehall, London.

P.S.—The dues received by the Fraternity are payable by prescription, and the pensions are payable pursuant to resolutions of the Company.

LIST made out in pursuance of the Statute 24 & 25 Vict. c. 47, s. 9, by the Fraternity of Hostmen of *Newcastle-upon-Tyne*, of all Pensions to be paid by them, in which a Vested Interest has been created before the 15th day of March 1861.

NAME.	Sex.	Age.	Amount.	Time and Conditions under which Payable.
			£. s. d.	
Henry Ingledew - -	male -	76	3 6 8	The 4th January yearly for his services as clerk of the company, to which office he was appointed on the 4th January 1836, to hold during good behaviour; he has therefore a vested interest.
Gilbert Grey - - -	male -	–	2 10 –	The 4th January yearly for his services as beadle of the company, to which office he was appointed on the 4th January 1842; this appointment of beadle is made yearly, but the company consider that he is entitled to have it renewed yearly, during good behaviour.

The company in pursuance of resolutions passed at meetings duly convened, make payments of various sums of money in support of divers charitable institutions, none of which has a vested interest therein.

Newcastle, 31 March 1862.

(signed) *Henry Ingledew*,
Clerk of the Company.

SOCIETY OF KEELMEN ON THE RIVER TYNE.

Sir, Newcastle-upon-Tyne, 7 October 1862.

In accordance with your letter of the 2d inst. I herewith enclose you corrected list of Pensioners Members and Officers of the Keelmen's Society on the River Tyne, whose pensions and salaries were granted, or in which a vested interest was created, before the 15th day of March 1861.

I am, &c.
(signed) *L. S. Carr*,
Secretary.

The Secretary,
Marine Department, Board of Trade,
Whitehall, London.

List of Pensions now paid by the Society of Keelmen on the *River Tyne* to Superannuated Members of the said Society, and which were granted or in which a vested Interest was created before the 15th day of March 1861; together with the Names and Ages of such Wives of the Pensioners as on the death of their Husbands may be entitled to Pensions as Widows.

Pensioner's Name.	Pensioner's present Age.	Amount of Pension paid per Week.	Wife's Name.	Wife's present Age.	Pensioner's Name.	Pensioner's present Age.	Amount of Pension paid per Week.	Wife's Name.	Wife's present Age.
		s. d.					s. d.		
Benjamin Arkless	67	3 –	—		Anthony Hopper	72	3 –	—	
Archibald Armstrong	76	3 –	—		John Ions	67	3 –	Dorothy	56
Andrew Armstrong	75	3 –	—		Carr Lothian	53	3 –	—	
John Armstrong	64	3 –	Margery	62	Edward Lawson	77	3 –	Sarah	70
Nathan Bainbridge	56	3 –	Ann	56	John Lindsay	65	3 –	—	
George Barber	80	3 –	Ann	76	William Langlands	61	3 –	Elizabeth	62
Thomas Blackburn	75	3 –	—		Robert Ions	–	3 –	—	
George Brown	53	3 –	Mary	52	Nicholas Morpeth	78	3 –	—	
George Barlow	71	3 –	—		John Minikin	74	3 –	—	
Joseph Bagalee	74	3 –	—		Thomas Matfield	70	3 –	Elinor	74
John Blenkinsop	66	3 –	Harriett	65	Robert Miller	68	3 –	Jane	78
John Bainbridge	74	3 –	—		George Orrick	60	3 –	Elizabeth	58
Andrew Bayley	70	3 –	Ann	70	Robert Patterson	63	3 –	—	
Thomas Brown	67	3 –	—		Andrew Penman	67	3 –	Margaret	67
Thomas Blackburn	77	3 –	—		William Parker	61	3 –	Margaret	63
Robert Brown	66	3 –	—		Henry Potter	61	3 –	Jane	63
Joseph Chilton	54	3 –	Elizabeth	48	John Spoor	74	3 –	Jane	76
George Chilton	81	3 –	—		George Swaddell	74	3 –	Jane	73
Joseph Chance	68	3 –	—		John Shield	85	3 –	Isabella	65
John Clark	77	3 –	—		Thomas Smiles	67	3 –	Mary	47
George Carr	66	3 –	Mary	59	Andrew Spoor	67	3 –	Ann	67
James Daglish	82	3 –	Jane	67	Thomas Stoker	77	3 –	Mary	77
George Dodds	84	3 –	—		William Spoor	63	3 –	Jane	36
William Dial	62	3 –	Mary	62	Christopher Smart	78	3 –	Margaret	70
Joseph Errington	84	3 –	Jane	80	William Stothart	72	3 –	Mary	62
Edward Errington	67	3 –	Ann	61	Matthew Swaddell	66	3 –	Mary	50
Nicholas Forster	67	3 –	—		Michael White	65	3 –	Mary	75
Matthew French	51	3 –	Margaret	50	John Waister	80	3 –	—	
Anthony Finley	78	3 –	Susan	59	William Williamson	75	3 –	Hannah	64
William Greener	63	3 –	Elinor	52	Joseph Wilson	73	3 –	—	
Newton Glasper	78	3 –	Hannah	77	David Watson	71	3 –	Mary	67
George Hepplewhite	76	3 –	—		John Watson	65	3 –	—	
Ralph Hepplewhite	71	3 –	—		William Watson	72	3 –	—	

7 October 1862. *L. S. Carr*, Secretary.

Society of Keelmen on the River Tyne—continued.

LIST of PENSIONS now paid by the Society of KEELMEN on the River Tyne to WIDOWS of MEMBERS of the said Society, and which were granted, or in which a vested Interest was created, before the 15th day of March 1861.

NAME.	Present Age.	Amount of Pension paid per Week. £.	s.	d.
Isabella Arkless	73	–	1	6
Jane Armstrong	71	–	1	6
Mary Anderson	76	–	1	6
Margaret Aiston	65	–	1	6
Margaret Arkless	77	–	1	6
Margaret Bayles	90	–	1	6
Margaret Batey	56	–	1	6
Jane Barlow	74	–	1	6
Ann Bruce	67	–	1	6
Elinor Burn	82	–	1	6
Isabel Blackbird	64	–	1	6
Rebecca Bryson	67	–	1	6
Mary Cook	62	–	1	6
Sarah Cook	61	–	1	6
Elizabeth Cook	71	–	1	6
Deborah Cook	81	–	1	6
Elizabeth Cook	61	–	1	6
Jane Cook	57	–	1	6
Mary Carr	65	–	1	6
Elizabeth Carr	50	–	1	6
Hannah Cleminson	47	–	1	6
Elizabeth Cowan	61	–	1	6
Mary Davidson	61	–	1	6
Mary Douglas	67	–	1	6
Margaret Douglas	73	–	1	6
Elizabeth Davidson	87	–	1	6
Martha Dodds	68	–	1	6
Elizabeth Daglish	78	–	1	6
Dinah English	77	–	1	6
Ann Ellison	60	–	1	6
Margaret Ellison	82	–	1	6
Jane Errington	52	–	1	6
Mary Forster	70	–	1	6
Dorothy Forster	64	–	1	6
Ann Finlay	88	–	1	6
Lydia Forster	72	–	1	6
Mary Fairley	62	–	1	6
Catherine Guthrie	75	–	1	6
Euphemia Grey	58	–	1	6
Elinor Grey	57	–	2	6
Ann Gardner	75	–	1	6
Barbara Gray	63	–	1	6
Ann Galley	66	–	1	6
Ann Golightly	75	–	1	6
Margaret Harrison	76	–	1	6
Hannah Hymers	59	–	1	6
Isabella Hall	81	–	1	6
Eleanor Henderson	61	–	1	6
Elizabeth Howey	62	–	1	6
Jane Hall	70	–	1	6
Dorothy Harrison	85	–	1	6
Alice Hall	52	–	2	6
Mary Hepplewhite	51	–	1	6
Mary Hutchinson	58	–	1	6
Jane Hindmarch	76	–	1	6
Mary Hall	71	–	1	6
Mary Hall	51	–	1	6
Mary Jobling	68	–	1	6
Margaret Johnson	82	–	2	–
Margaret Jons	33	–	1	6
Ann Leithead	84	–	1	6
Jane Lawson	60	–	1	6
Isabella Lawson	72	–	1	6
Mary Malbourn	66	–	1	6
Mary Millar	78	–	1	6
Ann Miniken	59	–	1	6
Mary Matfield	55	–	1	6
Elizabeth Marr	74	–	1	6
Elizabeth Matfield	69	–	1	6
Elizabeth Nicholson	71	–	1	6
Sarah Newton	64	–	1	6
Mary Oxley	73	–	1	6
Mary Penman	76	–	1	6
Jane Pybus	49	–	1	6
Mary Pyle	89	–	1	6
Isabella Robinson	75	–	1	6
Mary Reay	61	–	1	6
Isabella Rutherford	67	–	1	6
Mary Spoor	64	–	1	6
Elizabeth Surtees	82	–	1	6
Mary Stewart	63	–	1	6
Jane Stephenson	68	–	1	6
Elizabeth Story	81	–	1	6
Margaret Scott	65	–	1	6
Mary Swaddle	71	–	1	6
Mary Stewart	86	–	1	6
Isabella Snowball	36	–	1	6
Elizabeth Spark	28	–	1	6
Sarah Stoker	62	–	1	6
Jane Scotland	59	–	1	6
Mary Thompson	75	–	1	6
Hannah Tulip	78	–	1	6
Isabella Thompson	66	–	1	6
Ann Waister	81	–	1	6
Ann Willis	77	–	1	6
Margery Watson	77	–	1	6
Mary Watson	75	–	1	6
Jane Watson	75	–	1	6
Mary Weatherburn	60	–	1	6
Ruth Ward	77	–	1	6
Maria Watson	58	–	1	6
Elizabeth Watson	82	–	1	6
Margaret Watson	60	–	1	6

7 October 1862.

L. S. Carr, Secretary.

Society of Keelmen on the River Tyne—continued.

LIST of PENSIONS now paid by the Society of KEELMEN on the River Tyne to ORPHANS and Infirm Persons, and which were granted, or in which a vested interest was created, before the 15th day of March 1861.

NAME.	Present Age.	Sex.	Amount of Pension Paid per Week. £.	s.	d.
Catherine Brown	70	female	–	1	–
Isabella Hopper	49	female	–	1	–
Mary Douglas	46	female	–	1	–
Catherine Armstrong	8	female	–	1	–
Mary Armstrong	23	female	–	1	–
William Whittle	19	male	–	1	–
William Spoor	23	male	–	1	–

7 October 1862. *L. S. Carr*, Secretary.

LIST of MEMBERS of the Society of KEELMEN on the River Tyne who have vested Interests created before the 15th day of March 1861, in future Pensions for themselves, their Wives and Children; together with the Names and Ages of the Wives of such of the said Members as are Married.

MEMBER'S NAME.	Member's present Age.	WIFE'S NAME.	Wife's present Age.	MEMBER'S NAME.	Member's present Age.	WIFE'S NAME.	Wife's present Age.
George Armstrong	67	Catherine	62	Henry Blenkinsop	62	Elizabeth	52
William Ainsley	31	Mary Anne	27	John Barber	53	Isabella	39
Shadrach Aiston	25	none.		George Barlow	44	Isabella	39
George Ainsley	55	Mary	50	Joseph Blackburn	38	Ann	33
Anthony Armstrong	32	Jane	31	Alexander Bruce	67	Mary	68
Joseph Armstrong	22	Anne	23	Andrew Brown	59	–	56
George Armstrong	71	Mary	71	William Brown	52	–	52
George Armstrong	34	Jane	28	Thomas Brown	31	–	29
John Arkless	35	Eliza	35	Robert Batey	60	Ann	57
James Anderson	—			John Batey	38	Margaret	34
Joseph Armstrong	46	–	40	Thomas Blackburn	43	Jane	44
James Armstrong	—			Archbold Blackburn	41	—	
Robert Armstrong	44	–	38	Peter Bruce	28	—	
Joseph Arkless	59	Dinah	60	Andrew Bruce	25	Margaret	23
Benjamin Arkless	28	Anne	24	T. Blackburn	43	Jane	41
James Anderson	—			W. Blackburn	33	Margaret	27
Thomas Aiston	—						
Samuel Aiston	—			Robert Curry	38	Theodosia	37
Anthony Aiston	—			William Carr	52	—	
				Joseph Cook	43	—	
John Blackburn	32	—		John Cook	67	Mary	78
Henry Bainbridge	42	Isabella	32	Robert Clasper	43	Mary	40
John Burn	57	Mary	60	Thomas Corby	55	Jane	40
John Brown	57	Jane	43	Joseph Corby	60	Ellen	55
William Brown	34	—		Thomas Chater	58	Jane	54
William Blenkinsop	43	Elizabeth	38	Thomas Crooks	64	—	
William Burn	—			Cuthbert Cook	55	—	
William Burn, sen.	56	Jane	62	William Carr	68	Jane	65
Richard Batey	34	—		Robert Cook	73	Mary	72
William Bewick	61	Eliza	50	John Crighton	57	—	
George Brown	68	Ellen	72	John Cook	43	Ellen	42
Samuel Burn	46	Jane	48	John Corby	61	—	
Joseph Bell	46	—		William Crooks	53	—	
Thomas Bainbridge	58	—		William Clasper	54	Elizabeth	53
John Briggs	45	Ann	37	Thomas Cook	44	Jane	34
Joseph Bainbridge	72	Mary	64	John Clarke	62	Mary	61
James Batey	39	Mary	39	Thomas Clarke	43	Mary	32

Society of Keelmen on the River Tyne.—List of Members who have vested Interests, &c.—*continued.*

MEMBER'S NAME.	Member's present Age.	WIFE'S NAME.	Wife's present Age.
James Craig	55	Margaret	54
Benjamin Carr	32	Mary	31
William Curry	69	—	
Richard Clasper	38	Jane	34
John Dinning	43	Frances	32
Thomas Daglish	39	—	
William Daglish	—		
George Daglish	34	Mary	32
George Daglish	33	Jane	30
William Donaldson	43	Jane	32
John Daglish	54	Ann	63
John Daglish	35	Alice	35
Robert Dick	—		
William Daglish	32	Mary Jane	22
John Danskin	35	Ellen	36
Frederick Dickinson	21	—	
William Dial	—		
John Daglish	40	Jane	37
William Daglish	—		
George Daglish	33		31
John Errington	70	—	
James Elliott	56	Mary	48
Roger Errington	62	—	
William Errington	—		
Thomas Errington	—		
Edward Errington	—		
George Forster	33	Isabella	42
John Forster	—		
Thomas French	—		
Thomas Foulthorpe	60	Isabella	60
William Forster	39	Hannah	39
William Ferguson	52	Catherine	40
William Forster	—		
Robert Foulthorpe	26	Sarah	22
William Forster	—		
John Forster	—		
J. Forster	33	—	
Edward Forster	—		
James Forster	—		
James Forster	33	—	
William Forster	54	—	
Michael Forster	63	—	
Armstrong Forster	26	—	
James Forster	31	—	
William Grant	43	Jane	34
John Golightly	—		
John Gilroy	43	Jane	32
Samuel Grey	38	Elizabeth	34
John Golightly	49		44
James Grey	—		
James Grey	61	—	
Thomas Grey	—		
Michael Gardner	—		
John Grey	—		
John Gardner	—		
George Graham	—		
John Hepplewhite	64	Mary	54
James Henderson	—		
John Henderson	—		
Francis Henderson	43	Jane	32
William Hopper	57	—	
Taylor Harwood	44	Jane	40
John Hall	44	Frances	38
Robert Hedley	48	Jane	43
Nicholas Havelock	50	Mary	59
George Hodgson	37	Jane	34
John Hymers	44	Frances	43
Robert Hymers	53	Mary	34
Andrew Henderson	42	—	
James Heads	35	Mary	34
Greener Hails	50	Elizabeth	51
Thomas Hymers	—		
William Hedley	40	—	
George Haver	49	Ann	47
Matthew Hails	62	—	
Martin Hails	—		
Anthony Hails	—		
Benjamin Hails	—		
Robert Hymers	—		
Thomas Hymers	—		
Edward Hymers	—		
George Humphrey	59	Mary	59
Arthur Johnson	26	Jane	34
William Johnson	73	Mary	67
Hopper Jobling	62	Elizabeth	57
George Jobling	35	—	
John Jobling	37	—	
John Jobling, jun.	38	Jane	47
George Jobling	57	—	
William Johnson	43	Margaret	32
Robert Jons	53	Margaret	46
George Jobling	39	Elizabeth	32
J. William Johnson	—		
George Kirsopp	28	Ellen	26
George Legge	46	Jane	45
Thomas Lambert	64	Mary	66
Edward Liddle	43	Mary	37
Ralph Liddell	—		
Michael Maddison	—		
Richard Maddison	42	Jane	42
John Minto	39	—	
Matthew Maddison	—		
Anthony Maddison	—		
John Nixon	38	Ann	29
Thomas Nicholson	34	Ann	29
William Nicholson	66	—	
Matthew Newton	—		
William Norval	24	—	
Thomas Newton	59	Ann	60
John Oliver	65	Ann	62
John Oliver	35	Isabella	36
Robert Oxnett	61	Margaret	55
Ralph Oxnett	—		
Ralph Oxley	65	—	
George Oliver	—		
William Oxley	50	Hannah	50
Edward Potter	—		
Robert Potts	52	Jane	—
John Pyle	46	—	
John Pace	—		
William Pace	—		
Robert Peareth	—		
Anthony Prudhoe	54	Martha	52
Dennis Potter	54	Mary	52
James Potts	58	Mary	56
Thomas Pescott	—		
Roger Potter	—		
William Prudhoe	—		
Joseph Reay	50	Mary	50
Robert Reay	—		
George Reed	43	Mary	41

Society of Keelmen on the River Tyne.—List of Members who have vested Interests, &c.—*continued.*[a].

MEMBER'S NAME.	Member's present Age.	WIFE'S NAME.	Wife's present Age.	MEMBER'S NAME.	Member's present Age.	WIFE'S NAME.	Wife's present Age.
George Reay	50	Mary	—	George Thompson	—		
William Robson	63	Isabella	54	Anthony Thompson	—		
Michael Robson	49	Margaret	49	Thomas Tulip	44	Elizabeth	45
John Robson	—			Robert Todd	62	Ann	64
James Robson	38	—		George Todd	30	—	
James Robson	54	Mary	53	Barty Thompson	—		
William Ramshaw	—			John Thompson	—		
Gair Robson	44	Sarah	42				
				Samuel Veitch	—		
Thomas Spoor	—			Thomas Vallens	—		
James Sadler	43	Jane	32	Robert Veitch	36	Elizabeth	34
William Smith	50	Jane	49	William Veitch	34	Jane	34
John Spoor	36	Mary	34	John Vallens	43	Sarah	54
Robert Spoor	38	Mary	—	William Vallens	43	Sarah	35
John Spoor, jun.	—			Michael Veitch	43	Mary	54
Edward Spoor	—			William Vallens	24	—	
John Stoker	—			John Vallens, jun.	—		
William Stoker	—			William Vallens, sen.	—		
William Snowball	56	—		William Vallens, jun.	—		
Robert Stephenson	37	Jane	37	Samuel Veitch, jun.	—		
Thomas Shippen	32	Mary	33	Michael Veitch, jun.	25	Ann	26
John Stoker	48	Catherine	47	Thomas Vallens	—		
John Spoor	48	—					
William Smith	51	Mary	48	John Wilson	65	Jane	64
Charles Shippen	40	Mary	40	James Wilson	70	Jane	61
William Spoor	—			William Williamson	65	—	
Abram Spark	—			John Watson	77	—	
Joseph Spoor	56	—		John Watson, jun.	—		
J. Spoors	—			Thomas West	—		
Robert Spoor	—			John Watson	58	—	
John Spoor	—			Thomas Watson	68	Margaret	66
				James Wilson, jun.	—		
John Tulip	—			Joseph Wilson	—		
William Thompson	52	Ann	34	Thomas Wilson	—		
Joseph Thompson	55	Sarah	54	James Wilson	—		
William Tulip	21	—		John Wilson	—		
William Thornton	26	—		William Wilson	—		
Benjamin Thompson	—			J. Wilkinson	—		

7 October 1862.

L. S. Carr, Secretary.

List of Salaries now Paid by the Society of Keelmen on the River Tyne to Officers, and which were granted, or in which a vested Interest was created before the 15th day of March 1861.

Names of Officers.	Title.	Age.	Amount of Salary.
Lancelot Stobart Carr	Secretary	56	100 *l.* per annum.

7 October 1862.

L. S. Carr, Secretary.

Society of Keelmen on the River Tyne.

ACT for establishing a permanent Fund for the relief and support of Skippers and Keelmen employed on the River Tyne, who by Sickness, or other accidental Misfortunes, or by old Age, shall not be able to maintain themselves and their families; and also for the relief of the Widows and Children of such Skippers and Keelmen. With the Bye-laws of the Society, established by the said Act. Also, an Act for altering and amending an Act of his late Majesty 1 Geo. 4, Sess. 1820.

AN ACT for establishing a permanent Fund for the relief and support of Skippers and Keelmen employed on the River Tyne, who by Sickness, or other accidental Misfortunes, or by old Age, shall not be able to maintain themselves and their families; and also for the relief of the Widows and Children of such Skippers and Keelmen.

Preamble.

WHEREAS the skippers and keelmen employed in navigating keels upon the river Tyne are very numerous, and from the nature of their employment are obliged to reside in two or three parishes or townships near the said river; so that when they or their families become objects of parochial relief, either the parishes or townships in which they are settled are greviously burthened, or sufficient provision is not made for their support:

And whereas great benefit will result to the said skippers and keelmen, and their families' and a reduction of the poor rates in the parishes or townships where they are settled will be effected, by forming such skippers and keelmen into a society, and establishing a permanent fund, by the allowance of a small sum out of their respective wages, which they are willing to make, to be applied for the relief and support of themselves and their families, in case of sickness, old age, or infirmity, and of their widows and children:

May it therefore please your Majesty,

Skippers and keelmen formed into a society, to be called

That it may be enacted; and be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that from and after the first day of July next, after the passing of this Act, all and every the skippers and keelmen navigating keels upon the said river Tyne shall be and are hereby formed into a society for the purpose of raising and establishing a permanent fund in manner hereinafter mentioned, to be applied in maintaining and supporting themselves and their families in cases of sickness, old age or infirmity, and their widows and children, which shall be called and denominated "The Society of Keelmen on the River Tyne."

"The society of keelmen on the River Tyne."

Guardians appointed.

And, to the end that the affairs of the said society may be orderly managed and conducted, and the funds thereof faithfully administered and applied, be it enacted by the authority aforesaid, that Sir Matthew White Ridley, baronet, Charles Brandling, esquire, Members now serving in Parliament for the town and county of Newcastle-upon-Tyne; William Cramlington, esquire, now mayor of the said town and county; Christopher Fawcett, esquire, now recorder of the said town and county; Aubone Surtees, esquire, Edward Mosley, esquire, John Hedley, esquire, and Hugh Hornby, esquire, now aldermen of the said town and county; Joseph Forster, esquire, now sheriff of the said town and county; John Erasmus Blackett, esquire, now governor of the company of hoastmen within the said town and county; Jonathan Airey and John Widdrington, esquires, now stewards of the said company of hoastmen; and George Colpitts, Robert Rayne, Anthony Hood, Richard Bell, Thomas Ismay, Henry Scott, Ralph Atkinson, Henry Airey, and Robert Lisle, now members and trading brethren of the said company of hoastmen, being in number 21, shall be, and they are hereby constituted and appointed guardians of the said society, called "The Society of Keelmen on the River Tyne," from and after the said first day of July next ensuing, for one whole year, and until a new election of guardians shall take place, as hereinafter is directed, and shall have the order, disposition, and management of the affairs and funds thereof.

Who are to be a body politic and corporate.

And be it further enacted by the authority aforesaid, that the said guardians, so hereby constituted and appointed, and their successors, to be elected and appointed in manner hereinafter mentioned, shall be, and they are hereby declared to be a body politic and corporate under the name and description of "The Guardians of the Society of Keelmen on the River Tyne," and shall have perpetual succession, and shall have, enjoy and possess, all the powers, privileges, and capacities to take and transmit property, to sue and be sued, and to do other acts competent to bodies politic and corporate, to do and perform, and they shall have, and from time to time use a corporate seal; and that they and their successors, by the name aforesaid, shall and may, at any time hereafter, without license in mortmain, purchase, take or receive any lands, tenements, or hereditaments, or any estate or interest derived out of the same, so as such lands, tenements, or hereditaments be only for the site of, or be to be converted into an hospital, with offices and appurtenances necessary thereunto.

Society of Keelmen on the River Tyne.

Guardians to provide an hospital for the infirm keelmen, &c.

And be it further enacted by the authority aforesaid, that the said guardians and their successors, to be elected as hereinafter directed, shall and may and they are hereby authorised and empowered to provide an hospital for the reception and maintenance of such skippers and keelmen, employed or to be employed on the river Tyne, as shall by sickness or other accidental misfortunes, or by becoming decript or worn with age, be rendered incapable of maintaining themselves or their families, or shall provide for such skippers and keelmen by allowing them certain pensions, or otherwise, as to the said guardians and their successors shall seem meet, and most for the advantage of the intended charity; and also to relieve the widows and children of such skippers and keelmen, provided such children are not of the age of 14 years, or if of that age or upwards, not capable of getting a livelihood by reason of lameness, blindness, or other infirmities, so far forth as the income and revenues which are, shall, or may be vested in the said guardians and their successors, will extend for the purposes aforesaid: Provided always, that no skipper or keelman shall be entitled to any of the benefits of this Act, unless he shall produce or cause to be produced, to the said guardians or their successors, a certificate from the stewards of the said society of keelmen hereinafter named, and their successors, to be elected as hereinafter is directed, or any five of them, in writing under their hands or marks, declaring such skipper or keelman to be a fit object of the charity, and entitled to the benefit thereof; and that no widow, child, or children, of any skipper or keelman shall be relieved, or entitled to any allowance under this Act, unless she or they, or some person on her or their behalf, shall produce a certificate to the said guardians or their successors, from the said stewards or their successors, or any five of them, in writing under their hands or marks, signifying that such widow was the lawful wife and real widow, and that such child or children was or were the lawful child or children of such skippers or keelman, and is or are under the age of 14 years, or if of that age or upwards, incapable of getting a livelihood, by reason of lameness, blindness, or other infirmity, and that such widow, or child or children, respectively, is or are proper objects of the charity: And provided also, that no skipper or keelman, nor widow or children of any skipper or keelman, shall have, receive, or enjoy any benefit or provision under this Act, unless such skipper or keelman shall have contributed his quota towards the fund hereby directed to be raised for the space of one entire year without wilful or intentional interruption: And provided also, that no skipper or keelman, nor the widow or children of any skipper or keelman, who shall have contributed his quota towards the fund aforesaid for the space of one entire year, but shall afterwards cease to be employed as a skipper or keelman, on the said River Tyne, shall be entitled to any relief whatsoever from the said fund, unless such skipper or keelman respectively shall, from the time of his ceasing to be so employed, pay or contribute towards the said fund such sum or sums of money as the said guardians or their successors, or the major part of them, shall direct or appoint, not exceeding in the whole 6 *d.* per week, weekly, and every week during the time he shall continue unemployed, except where the cessation of employment shall be occasioned by his being impressed into his Majesty's service, or by old age, sickness, or other infirmity.

No keelman to be entitled to the benefits of this Act, unless he shall produce a certificate of the stewards of the society, declaring him to be an object of the charity.

No keelman nor his widow or children, shall be entitled to the benefits of this Act, unless he shall have contributed his quota to the fund for one entire year; nor in case of his ceasing to be a keelman, unless he shall contribute weekly thereto, not exceeding 6 *d.* per week, except he shall be impressed, &c.

Three of the guardians to be a committee, and meet on the first Thursday in every month, at the Guildhall in Newcastle.

And be it further enacted by the authority aforesaid, that any three or more of the said guardians for the time being shall be a committee, and shall meet from time to time, upon the first Thursday in every month, in the Guildhall of the said town and county, and at such other time or times as they shall think fit to appoint, and such committee shall have power, when assembled as aforesaid, in the name of the said corporation, and on their account, to apply the monies arising and to be received by virtue of this Act, vested in the said corporation, for the relief and support of such skippers and keelmen, and their widows and children, as are before described, and to appoint and choose, and at their pleasure to remove, displace, and supply any officers, servants, and other person or persons to be employed in the business of the said corporation, other than and except the stewards of the said society hereinafter appointed, and such officers and persons as shall be appointed by the guardians of the said society, and to direct and appoint such salaries, perquisites, or other rewards, for their labour or service therein, as the said committee shall approve or think proper, and to do, manage, transact, and determine all such other matters and things, as to them shall appear necessary and convenient for effecting the purposes of this Act.

The transactions, &c., of the committee to be subject to the control of the other guardians.

Provided always, that the management, transactions and accounts of such committee shall be from time to time, and at all times hereafter, subject and liable to such audit and inspection, allowance, disallowance, and control of all or such of the guardians of the said hereby erected corporation, as by any bye-laws or ordinances of the same corporation shall be for that purpose directed and appointed.

Election of stewards.

And be it further enacted, by the authority aforesaid, that each respective hoastman or fitter, or co-partnership of hoastmen or fitters upon the River Tyne, shall on the first day of July next after the passing of this Act, or within five days before the said first day of July, appoint a place and time, and duly give notice thereof to the several skippers and keelmen then bound or belonging to him or them, or employed in his or their work, for a general meeting of all his or their skippers and keelmen, who shall, at the time and place so to be appointed, meet and assemble together, and after having chosen a chairman of such meeting, they, or the greater number of them so assembled, shall proceed to name or elect one skipper or keelman belonging to such work, who shall be and become a steward of the said society of keelmen until the first day of July then next following, and on the first day of July in every year, yearly, for ever thereafter, or within five days before such first day of July, a new choice or election of a steward for each work shall in like manner be had and taken

aken by the said skippers and keelmen of each respective work, or the greater part of them resent at such meeting to be appointed as aforesaid, for the year then next following, each which steward shall continue and remain a steward for the work for which he shall be so elected unto the next annual election of stewards shall take place in manner aforesaid; and n case of an equality of votes, such chairman shall have and exercise a double or casting ote.

Society of Keelmen on the River Tyne.

The chairman of the meeting to have a casting vote.

And be it further enacted by the authority aforesaid, that the said stewards, so to be lected and appointed as last mentioned, shall, on the 2d day of July, in the year of our Lord 1789, and on the 2d day of July in every year for ever thereafter, except in any year when the econd day of July shall fall on a Sunday, and then on the day next following, meet and assemble together in the Guildhall of the said town of Newcastle-upon-Tyne, at ten of the clock in he forenoon, and after having appointed a chairman of such meeting, they, or the greater number of them then assembled, shall proceed to name and elect 21 persons to be the guardians f the said society for the year ensuing, of which number the members serving in Parliament or Newcastle aforesaid for the time being, the mayor, the recorder, the four senior aldermen, nd the sheriff of Newcastle aforesaid for the time being, and the governor and stewards of he company or fraternity of hoastmen within the said town shall be 12, and the remaining of which number shall be trading or meeting brethren of the said company of hoastmen, which said 21 persons so to be elected shall be and continue guardians of the said society ntil the next annual election shall take place in manner aforesaid; and in case of an equality f votes, such chairman shall have and exercise a double or casting vote.

Election of guardians.

Chairman to have a casting vote.

Provided always, and it is hereby enacted, that in case of the death of the Members erving in Parliament for the said town, the mayor, recorder, four senior aldermen, and heriff of the said town, and of the governors and stewards of the said company or fraternity f hoastmen, or any of them, or in case they or any of them shall quit or depart from neir respective offices, the successors or successor of them, or any of them, so dying, r quitting, or departing from their offices as aforesaid, shall be and become guardians r guardian of the said society of keelmen immediately upon his or their being elected to 'arliament, or to any of the said offices in the room of the person or persons so dying, or uitting, or departing from his or their offices as aforesaid, and shall be and continue guarians or guardian until a new election of guardians shall be made in manner aforesaid; and n case of the death of any other or others of the said guardians to be elected as aforesaid, ne vacancy or vacancies thereby occasioned shall not be supplied until the next annual day f election, and the corporation hereby established shall be and be deemed full and complete, otwithstanding such vacancy or vacancies: Provided also, that if it shall happen at the me of any such election as aforesaid, that there shall not be sufficient number of meeting r trading brethren of the company or fraternity of hoastmen to supply the number hereinefore directed to be elected from that body, it shall and may be lawful for the stewards for the me being to name and elect, in manner aforesaid, a sufficient number of guardians from ne common council of the said town of Newcastle for the time being to supply such eficiency.

Provision in case of death, &c. of guardians.

And be it further enacted by the authority aforesaid, that it shall and may be lawful for ne said guardians for the time being, or any 11 of them, to make, ordain, and constitute uch and so many bye-laws, orders, ordinances, and constitutions as to them, or any 11 f them, shall seem necessary and convenient for the establishing the said hereby-erected orporation, and carrying on the affairs thereof, and for appointing the officers, servants, nd others to be employed therein, and for the better applying the money hereby directed o be raised and received, and providing for the persons entitled to the benefits of this Act, nd for auditing the accounts, and controlling, and allowing or disallowing the transactions f the said committee; and the same bye-laws, orders, ordinances, and constitutions so ade to put in use accordingly, and at their will and pleasure to revoke, change, and ter the same, so always as such bye-laws, orders, ordinances, and constitutions be reasonble, and not repugnant to the laws, customs, and statutes of this realm, or any of the xpress provisions or regulations of this Act.

Power for guardians to make bye-laws, &c.

And, for raising a fund for effecting the good ends and purposes aforesaid, be it enacted y the authority aforesaid, that the crew of every keel which shall be employed by any oastmen or fitter, or any co-partnership of hoastmen, or fitters, or other person or persons pon the said river Tyne, shall, during such their employment, pay, contribute, or allow eekly such sum or sums of money as the said guardians or their successors, or the major art of them, shall from time to time direct or appoint, not exceeding in the whole the sum f 1 *d.* for each and every chaldron of coals, lead, stones, ballast, chalk, ashes, manure, and ubbish (reckoning 53 hundred weight to a chaldron) which shall be respectively carried in uch such keel; which said weekly sum or sums of money such hoastman or fitter, or copartnership of hoastmen or fitters, or other persons employing each such keel crew, shall be at liberty, and is hereby authorised and required to deduct and retain out of the wages due to such keel crew respectively, and to pay over the same to such officer or officers as shall be appointed under this Act for the collecting and receiving the same.

Each keel's crew to pay not exceeding one penny per chaldron out of their weekly wages.

And it is hereby further enacted by the authority aforesaid, that the said weekly stoppages allowances shall be paid to, and collected by the person or persons to be appointed to eceive the same as aforesaid, on Monday in every week, the first payment thereof to be ade on Monday the seventh day of July next after the passing of this Act, for the week then

On Monday in every week, according to a muster roll, a duplicate of which muster roll is to be given to the collector.

Society of Keelmen on the River Tyne.

then immediately preceding, according to a written muster roll or particular to be kept by each hoastman or fitter, or co-partnership of hoastmen or fitters, or other person, by whom such skippers and keelmen are respectively employed, containing the number of keels, employed by each respectively, and also the number of skippers and keelmen belonging thereto, and what number of tides have been gone or performed by such keels respectively, and such other particulars as shall be sufficient to ascertain with accuracy, what stoppages or allowances ought to be kept or retained by such hoastman or fitter, or co-partnership of hoastmen or fitters, or other person respectively, and paid over, according to the directions of this Act; and that the person or persons so employed to collect such stoppages or allowances as aforesaid shall be furnished or supplied with a duplicate of such muster roll or particular, properly authenticated under their hands, by such hoastmen or fitters, or other persons respectively, or their respective clerks or agents.

Mayor or two aldermen to summon fitters and collectors, &c. and examine them upon oath; and in case of embezzlement to levy by distress and sale.

And be it further enacted by the authority aforesaid, that for the better ascertaining what shall from time to time be due from the said skippers and keelmen respectively, and what shall come to the hands of the person or persons so to be employed to collect the same, it shall and may be lawful to and for the mayor, or any two of the aldermen of Newcastle aforesaid for the time being, and he and they is and are hereby required, by warrant under his or their hand or hands, at the request of the guardians of the said society for the time being, or any three or more of them, to summon such hoastmen or fitters and collectors respectively before him or them, and to examine them upon oath respectively as to the truth of the copy or duplicate of the said muster roll or particular, and as to the sums of money paid and received for or on account of the stoppages or allowance so to be made as aforesaid; and in case of any embezzlement or misapplication of the money so received, then by warrant under his or their hand or hands to levy such sum or sums of money, as shall appear to have been so embezzled or misapplied by distress and sale of the goods or chattels of the person or persons offending, together with the charges or expenses necessarily incident thereto, and to pay the money so to be levied, after deducting thereout such necessary charges and expenses as aforesaid, to the guardians of the said society for the time being, or any three of them, to be by them applied to the purposes of this Act; and

Fitters or collectors refusing to appear on summons, forfeit 10*l.*

if such hoastmen or fitters, or collectors, or any of them, shall refuse or neglect, when so summoned to appear before the person or persons hereby empowered to examine them as aforesaid, or if they shall appear and refuse a full and true discovery of the matters aforesaid upon their several oaths, then and in every such case all and every such offender or offenders for every such refusal, shall forfeit and pay the sum of 10*l.*

Charges of this Act, and of officers' salaries, to be first paid, then and the receipts to accumulate for two years.

And it is hereby further enacted by the authority aforesaid, that the charges in and about procuring and obtaining this Act shall be paid out of the first monies to be raised by virtue of this Act, and all such monies as shall be thereafter raised (after paying the salaries of officers) until the 1st day of July, which will be in the year of our Lord 1790, shall accumulate and be a fund for purchasing and building an hospital, and for other the purposes of this Act, it being the true intent and meaning of this Act that no allowance or provision shall be made to any skippers or keelmen, or the widows or children of any skippers or keelmen, out of the funds to be raised by this Act, until after the said 1st day of July 1790.

Savings to be placed in the funds.

And be it further enacted by the authority aforesaid, that whenever the money remaining in the hands of the said guardians, or their proper officer or officers, and not immediately required to be applied to the purposes of this Act, shall amount to 100*l.*, then and in every such case such guardians, or any three of them, shall forthwith direct such money to be invested in some of the public funds, in the name of the corporation hereby established, which shall be forthwith invested, and together with the interest accruing thereon, shall be and become part of the funds of the said society, and shall be applied by such guardians, or any three or more of them, when occasion shall require, to the purposes of this Act, and to no other use or purpose whatsoever.

Allowance to be made towards the expense of members' funerals, &c.

And be it further enacted, that it shall and may be lawful for the said guardians, or any three of them, and they are hereby required to lay out and expend, from the fund hereby established, such reasonable sum or sums as they shall think proper for and towards the expense of the funerals of such of the said skippers and keelmen, or of their widows or children, as shall die after the said first day of July, which will be in the year of our Lord 1790, and as shall at the time of his, her, or their death or deaths be entitled to any provision or allowance out of the said fund hereby established.

Persons applying for relief, to make out their claims.

Provided always, and be it further enacted by the authority aforesaid, that all such person or persons as shall apply for relief out of the fund hereby established, shall, if required by the said guardians, or any three of them, besides the certificate hereinbefore directed to be given, produce or cause to be produced, before such guardians, one or more affidavit or affidavits, to be duly sworn before one of his Majesty's justices of the peace in support of his, her, or their claim or claims to relief, or such other proof as to the said guardians, or any three of them, shall seem reasonable or necessary in that behalf.

Persons obtaining relief by fraud, &c. to be excluded from future benefits.

And provided also, and be it further enacted, that if any of the said skippers or keelmen, their widows or children, shall by deceit, covin, misrepresentation, or other fraudulent means, procure any provision or relief from the fund established by this Act, he, she, or they

they so offending, shall be for ever thereafter incapable of receiving any of the benefits of this Act. *Society of Keelmen on the River Tyne.*

And, in order that the keels used on the River Tyne may be fairly and justly loaded, after the due and accustomed rate of eight chaldrons to each keel, Be it enacted by the authority aforesaid, that no person or persons shall from and after the first day of July next after the passing of this Act, be capable of acting as off-putter or off-putters at any coal staith upon the said river, until he or they respectively shall have taken and subscribed an oath to the effect following, (that is to say): Off-putters of keels to take an oath for the due execution of their office, before they can act.

"I, A. B., do swear, that I will faithfully and according to the best of my skill, knowledge, and judgment, execute and perform the duty of off-putter at the staith at , where I am now employed [*or*, to which I have been appointed, *as the case may be*], and that I will to the utmost of my power cause the keels using the said staith to be fairly and justly loaded, after the due and accustomed rate of eight chaldrons to each keel, without favour, partiality, malice, or prejudice, to any person or persons whomsoever." Form of oath to be made before the mayor, &c. of Newcastle, and filed in the town clerk's office.

"So help me, God."

Which oath the mayor, or any of the aldermen of the said town of Newcastle, is hereby authorised and required to administer when thereunto requested; and the same oath, so taken and subscribed, shall be filed in the office of the town clerk of the said town for the time being, and shall remain open to the inspection of any skipper or keelmen employed on the said river at all seasonable times.

And be it further enacted by the authority aforesaid, that this Act shall be deemed and taken to be a public Act, and shall be judicially taken notice of as such by all judges, justices, and other persons whomsoever, without special pleading the same. Public Act.

Bye-Laws.

Ordered, That the following sums per week be paid to those who shall be entitled to the benefit of the fund, and who shall produce the certificate required by the Act; and that such sums to be paid on Saturday in each week, at the house of Mr. William Tinwell, in Newcastle, between the hours of ten in the morning and one in the afternoon.

s.	*d.*	
5	–	To those who are disabled by temporary lameness or sickness.
3	–	To those who are superannuated or disabled by age.
1	6	To widows without children.
2	–	To widows having two children.
2	6	To widows having two or more children.

Ordered also, that 2 *l.* be allowed for the expense of the funeral of a keelman, or the wife or widow of a keelman, and 10 *s.* for the expense of the funeral of a child of a keelman, if under the age of 14 years, and the father be dead.

Ordered, That persons seeking relief from the fund, and giving notice to the stewards on Saturday, Sunday, or Monday, shall, if duly entitled, receive the stated relief on the Saturday following. But if they do not give notice till after Monday, their weekly relief shall not commence till the second Saturday after notice.

Ordered, That persons enjoying the benefit of this fund as superannuated, and unable to work at the keels, shall be at liberty to work at any other employment they can obtain. But in case they shall thereby earn at the rate of 4 *s.* per week or upwards, the allowance to them shall be reduced according to the following table:—

If earnings amount to	To receive from the fund
4 *s.* per week and under 5 *s.*	2 *s.* per week.
5 *s.* per week and under 6 *s.*	1 *s.* „
6 *s.* per week and under 7 *s.*	Nothing.
7 *s.* per week and under 8 *s.*	Nothing.

But in that case they shall not be required to contribute to the fund.
If 8 *s.* or more, they shall be required to contribute 6 *d.* per week to the fund.

Ordered, that persons knowingly obtaining relief from the fund when they are not justly entitled, or continuing to receive relief after they have ceased to be entitled, or knowingly receiving more than they are entitled to, shall forfeit all benefit from the fund, except in cases where from special circumstances the guardians shall direct otherwise.

Society of Keelmen on the River Tyne.

Ordered, that the stewards, or any five of them, shall have power to put persons enjoying the full benefit of 5*s.* per week upon the superannuated list, in which case the allowance shall be reduced accordingly. But such persons, if they think themselves aggrieved, shall have an appeal to the guardians against the order of the stewards.

Ordered, that no keelman shall be entitled to the benefit of the fund, unless he shall have been regularly bound to some hoastman or fitter, or co-partnership of hoastmen or fitters, for one year, after the usual manner.

Ordered, that each fitter shall stop the bye-tides as well as the ship-tides, and keep a separate account of each in the muster roll; and that for discovering those who shall neglect to stop and account for the bye-tides, a reward of one guinea shall be given to any person or persons making proof of such neglect. And that every skipper or keelman neglecting to account or pay for bye-tides, shall, for the first offence, be deprived of the benefit of the fund for one year, and for the second offence, two years, and for the third offence he shall be totally excluded.

Ordered, that the allowance from the fund to the widows of keelmen cease on their marrying a second time, becoming pregnant, or cohabiting with another man.

Ordered, that all keelmen not contributing to the fund on account of absence, shall pay up their arrears within six calendar months after their return home, on pain of forfeiting to the fund as much as their arrears amount to. And on neglecting to pay such arrears, and also the amount thereof as a forfeiture, within six calendar months, from the expiration of the first six months, they shall be excluded from all benefit from the fund.

Ordered, that no person shall receive the benefit of the fund, if they be objects of relief by means of any injury received in a quarrel, unless in self-defence. And in case any keelman injure another intentionally, so that he become an object of relief, he shall be obliged to re-imburse the fund what is advanced out of it to the injured person.

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1 George 4.—Sess. 1820.

AN ACT for altering and amending an Act of his late Majesty, for establishing a permanent Fund for the Relief and support of Skippers and Keelmen employed upon the River Tyne, their Widows and Children; and for augmenting the said Fund.—[Royal Assent, 8 July 1820.]

28 Geo. 3, c. 69.

WHEREAS by an Act passed in the 28th year of the reign of his late Majesty King George the third, intituled "An Act for establishing a permanent Fund for the relief and support of Skippers and Keelmen employed on the River Tyne, who by sickness or other accidental misfortunes, or by old age, shall not be able to maintain themselves and their families; and also for the relief of the Widows and Children of such Skippers and Keelmen," the said skippers and keelmen were formed into a society for the purpose of raising and establishing a permanent fund, to be applied in maintaining and supporting themselves and their families in cases of sickness, old age or infirmity, and their widows and children, to be called "The Society of Keelmen on the River Tyne;" and guardians were appointed for the orderly management of the affairs and funds thereof, and such guardians and their successors were created a body politic and corporate, under the name and description of "The Guardians of the Society of Keelmen on the River Tyne," with power to make bye-laws and ordinances for establishing and carrying on the affairs of the said society; and for raising a fund for the purposes aforesaid, it was enacted, that the crew of every keel employed upon the said river, should weekly pay or allow out of their wages, such sums of money as the said guardians should direct, not exceeding 1 *d.* for each chaldron of coals and other articles mentioned in the said Act, conveyed on each such keel, to be applied to the purposes of the said Act.

And whereas the weekly payment of one penny a chaldron of the said coals, and other articles, has been made under the directions of the said guardians for several years, and the monies thereby raised have been applied to the purposes of the said Act, and great benefit hath resulted therefrom, as well to the said skippers and keelmen, their widows and children, as to the parishes and townships where they are legally settled; but owing to the pressure of the times, and other circumstances, such monies have become inadequate to meet the payments due, and to become due to the several persons entitled to relief from the said fund, and the owners and lessees of collieries and coal mines upon or near to the said river, being desirous of aiding the said fund, and promoting the good ends and purposes of the said society, at a general meeting of such owners and lessees, have proposed that the said guardians

guardians and their successors shall be empowered and authorised by law to collect and receive from such owners and lessees the sum of one farthing per chaldron on all coals exported from and out of the River Tyne: *Society of Keelmen on the River Tyne.*

And whereas it is expedient that some of the powers and provisions in the said Act contained, should be amended, varied, and enlarged for the better effecting the purposes thereof:

May it therefore please your Majesty,

That it may be enacted, and be it enacted by the King's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that for the purpose of aiding the said fund, and enabling the guardians of the said society of keelmen and their successors to make payment to the several persons entitled to any relief or allowance from or out of the said fund, of the sums directed to be paid by the said recited Act, and the bye-laws and ordinances made, or to be made by the said guardians under the authority of the said Act, and for better effecting the purposes thereof, it shall and may be lawful to and for the said guardians of the said society of keelmen to demand and take of and from the owners or lessees, or the owner or lessee of any collieries or coal mines near the said River Tyne, selling or delivering coals to be exported from and out of the said river, the sum of one farthing per chaldron (reckoning 53 cwt. to a chaldron) for every such chaldron of coals so sold or delivered to be exported from and out of the said river, and which shall be so exported; such sum of one farthing per chaldron to be rendered and paid at the respective times hereinafter directed, to the said guardians of the said society, or to the officers or persons, officer or person appointed by them to collect and receive the same at the offices or places respectively where the contracts for the sale or delivery of such coals are usually made. Guardians to collect a farthing a chaldron on coals to be exported from the River Tyne, or conveyed in keels on the said river.

And be it further enacted, that it shall and may be lawful to and for the said guardians of the said society, from time to time, to appoint one or more fit person or persons to receive and collect the said duty of one farthing per chaldron, at such respective offices or places where the same is made payable as aforesaid; and such person or persons shall duly apply for and collect the same at four times in each year (that is to say), on the first Thursday in the months of January, April, July, and October respectively, or within seven days after each such Thursday, and shall from time to time, and at all times upon the request of the said guardians, duly account to them in writing under his or their hand or hands for all monies which he or they shall receive on account of such duty, and duly pay over the same to such guardians, and which monies shall be in the first place applied by the guardians in paying the charges and expenses incident to and attending the obtaining and passing of this Act, together with legal interest on the monies advanced for that purpose from the time of advancing or disbursing the same, and then in aid of the fund established by the said recited Act, and in effecting the several good ends and purposes of the said Act and of this Act. Guardians to appoint collectors to receive the duty, who are to collect it quarterly. Application of the duty.

And be it further enacted, that the guardians of the said society shall, and they are hereby authorised and required to take such security from the collector or collectors to be appointed by virtue of this Act, for the due execution of their offices respectively, as the trustees shall think proper. Collectors to give security.

And be it further enacted, that the said guardians shall, and they are hereby required and directed from time to time to order and direct a book or books to be provided by the person or persons employed by them to collect and receive the said duty of one farthing per chaldron, in which book or books shall be entered by such person or persons, true and regular accounts of all sums of money received on account thereof, and how the same have been applied or disposed of, and which book or books shall at all seasonable times be open to the inspection of the said owners and lessees of collieries or coal mines making payment of the said duty of any of them, and who shall be at liberty to take copies or extracts from such books, or any part or parts thereof, free of expense; and in case the person keeping such book or books shall refuse to permit, or shall not permit any of the said owners or lessees of collieries and coal mines to inspect the same book or books, or to take such copies or extracts as aforesaid, the person so refusing shall forfeit and pay for every such offence the sum of 5*l.*, to be added to the said fund established by the said recited Act, and to be applied and disposed of for the purposes for which the said fund is applicable under the provisions of the said Act, and the bye-laws and ordinances made in pursuance thereof. Collectors of duty to keep books of account, which are to be open to inspection. Penalty on collectors refusing inspection, or denying copies of books.

And whereas it is in and by the said recited Act provided that no skipper or keelman, nor widow or children of any skipper or keelman shall have, receive, or enjoy any benefit or provision under that Act, unless such skipper or keelman shall have contributed his quota towards the fund thereby directed to be raised for the space of one entire year, without wilful or intentional interruption: And whereas it has heretofore been customary for persons No skipper or keelman to be entitled to the benefits of the fund, unless he contributes to the fund three years, or

Society of Keelmen on the River Tyne.

at an early age to be employed by skippers and keelmen, to assist in the navigation and management of keels, preparatory to becoming themselves skippers or keelmen; and it is expedient to encourage and promote such custom, and to impose further conditions and restrictions on persons claiming benefit or provision under the said recited Act; be it therefore further enacted, by the authority aforesaid, that from and after the passing of this Act, no skipper or keelman, nor the widow or children of any skipper or keelman, shall have, receive, or enjoy any benefit or provision under the said Act, unless such skipper or keelman shall have contributed his quota towards the said fund for the space of three entire years without wilful or intentional interruption, or unless such skipper or keelman shall have been employed for the space of three entire years at the least, in assisting to navigate and manage a keel or keels before he became and was employed as a skipper or keelman, and shall have contributed his quota towards the said fund for one entire year without wilful or intentional interruption: Provided always, that nothing herein contained shall extend to deprive any skipper or keelman, or the widow or children of any skipper or keelman who shall have contributed his quota to the said fund for one entire year before the passing of this Act, of any benefit or provision to which he, she, or they became entitled under the said Act.

if he has served in the keels three years before he became a skipper or keelman, unless he contributes one year to the fund.

The right of the skippers or keelmen who have already contributed one year, saved.

Regulations as to the election of guardians.

And whereas it is by the said recited Act enacted, that the stewards of the society for the time being, shall in each year, at the time and place, and in the manner therein mentioned, name and elect 21 persons to be guardians of the said society for the year ensuing, of which number the Members serving in Parliament for Newcastle aforesaid for the time being, the mayor, the recorder, the four senior aldermen, and the sheriff of Newcastle aforesaid for the time being, and the governor and stewards of the company or fraternity of hoastmen within the said town shall be 12, and the remaining nine of which number shall be trading or meeting brethren of the said company of hoastmen, and in the event of a deficiency in number of meeting or trading brethren of the said company or fraternity for the purpose therein mentioned, the stewards of the said society for the time being are thereby empowered to name and elect, in manner thereinbefore directed, a sufficient number of guardians from the Common Council of the said town of Newcastle for the time being, to supply such deficiency: And whereas it may happen that the Members serving in Parliament for Newcastle aforesaid, and the mayor, recorder, four senior aldermen, and sheriff of the said town, and the governor and stewards aforesaid, may not together amount to 12 persons in number, by reason of the same person or persons respectively filling more than one of the situations, or answering more than one of the descriptions aforesaid; be it therefore further enacted, that if it shall happen at the time of any election of such guardians as aforesaid, that the Members serving in Parliament for Newcastle aforesaid, the mayor, recorder, four senior aldermen and sheriff of Newcastle aforesaid, and the governor and stewards of the said company or fraternity of hoastmen, shall not together amount to 12 persons in number, then it shall and may be lawful to and for the stewards of the said society, and they are hereby empowered and directed, at the time and place, and in the manner prescribed by the said recited Act for the election of such guardians as aforesaid, to name and elect to be guardians of the said society so many persons being trading or meeting brethren of the said company of hoastmen; or in the event of a deficiency in number of such company, so many persons from the Common Council of the said town of Newcastle for the time being, to the extent of such deficiency, as together with the several persons filling the situations, or answering the descriptions aforesaid respectively, and the other guardians to be elected under, and by virtue of, and in conformity to the said recited Act, shall make up and complete the number of 21 guardians.

Penalties and forfeitures, how to be recovered and applied.

And be it further enacted, that all penalties, forfeitures, and fines, imposed or authorised to be imposed by virtue of the said recited Act, or this Act (the manner of levying and recovering whereof is not otherwise directed), shall upon proof of the offences and conviction of the offenders respectively before any one or more of his Majesty's justices of the peace for the county wherein the offence shall be committed, or wherein the offender shall be and reside, and either by confession of the party or parties offending, or by the oath of one or more credible witness or witnesses, be levied by distress and sale of the goods and chattels of the party or parties offending by warrant or warrants under the hand and seal or hands and seals of such justice or justices, (which warrant or warrants such justice or justices is and are hereby empowered and required to grant for those purposes, and to administer such oath;) the overplus, after such penalties, forfeitures, and fines, and the charges of such distress and sale are deducted, shall be returned upon demand unto the owner or owners of such goods and chattels; and all such penalties, forfeitures, and fines, when so levied (if not otherwise directed to be applied by the said recited Act or this Act), shall be from time to time paid to the guardians of the said society, and applied to the purposes of the said recited Act and this Act; and in case sufficient distress shall not be found, and such penalties, forfeitures, and fines shall not be forthwith paid, it shall be lawful for such justice or justices, and he and they is and are hereby authorised and required, by warrant or warrants under his or their hand and seal, or hands and seals, to cause such offender or offenders to be committed to the common gaol or house of correction of such county, there to remain, without bail or mainprize, for any time not exceeding three calendar months, unless such penalties, forfeitures, and fines, and all reasonable charges, shall be sooner paid and satisfied.

And

Society of Keelmen on the River Tyne.

And for the more easy conviction of offenders against the said recited Act and this Act, be it further enacted, that all and every the justice and justices of the peace before whom any person or persons shall be convicted of any offence against the said recited Act and this Act, shall and may cause the conviction to be drawn up in the form or to the effect following, *mutatis mutandis*, as the case may happen to be:

Form of conviction.

County of } "Be it remembered, That on [*time of conviction*] at [*place of conviction*] A. B. [*name of offender*] of [*addition of offender*] was duly convicted
to wit. } before me [*or* us] [*name and style of convicting justice or justices*] for that the said A. B. [*name of offender*] on [*time of committing offence*] at [*place of committing offence*] did [*here state the offence against the Act, according to the fact*] contrary to the form of the statute made in the year of the reign of his Majesty King George the intituled [*here set forth the title of the Act*]; and I [*or* we] do therefore declare and adjudge that the said A. B. has forfeited for the said offence the sum of [*fine*] or shall be committed to [*place of imprisonment*] for the space of [*time of imprisonment*]. Given under my hand and seal [*or*, our hands and seals] the day and year first above written."

Proceedings not to be quashed for want of form.

And be it further enacted, that no order made concerning any of the matters in this Act contained, or any proceedings to be had touching the conviction of any offender or offenders against the said recited Act or this Act, shall be quashed or vacated for want of form, or removed or removable by *certiorari*, or any other writ or process whatsoever, into any of his Majesty's Courts of Record at Westminster or elsewhere, any law or statute to the contrary notwithstanding.

Persons aggrieved may appeal to the quarter sessions.

Provided always, and be it further enacted, that if any person or persons shall think himself, herself, or themselves aggrieved by any order, determination, proceeding, matter or thing made or done in pursuance of the said recited Act or this Act, such person or persons may, within three calendar months next after the cause of complaint shall have arisen, appeal to the justices of the peace at any general quarter sessions of the peace to be holden for the county wherein the cause of complaint shall arise, such appellant first giving, or causing to be given, 21 days' notice at least, in writing, of his, her, or their intention to bring such appeal, and of the matter thereof, to the guardians of the said society, or to their collector or collectors, and within seven days after such notice entering into a recognizance, before some justice of the peace for such county, with sufficient sureties, conditioned to try such appeal, and abide by the order of and pay such costs as shall be awarded against him, her, or them by the said justices at such quarter sessions; and the said justices at such sessions, upon proof of notice being given as aforesaid, and of entering into such recognizance, shall hear and finally determine the cause and matter of such appeal in a summary way, and may award such costs to the parties appealing or appealed against, as they the said justices shall think proper; and the determination of such quarter sessions shall be final, binding, and conclusive to all intents and purposes.

Public Act.

And be it further enacted by the authority aforesaid, that this Act shall be deemed and taken to be a public Act, and shall be judicially taken notice of as such by all judges, justices, and other persons whomsoever, without special pleading the same.

TRINITY CORPORATION OF LEITH.

Trinity Corporation of Leith.

Sir, Trinity House, Leith, 25 Sept. 1861.

With reference to my letter of 8th ultimo, I have now to hand you herewith the lists desired in your communication of 7th, along with copies of Acts of Parliament, Act 1 Geo. 4, c. 37, and Act 5 Geo. 4, c. 39, and of the bye-laws of this house in force at 15 March last, all which I trust may be satisfactory.

In addition to the lists of pensions, &c., it has been thought proper to transmit to your Honourable Board a list of payments for relief of poor sailors and their widows, &c., which, if discontinued, would be much felt by the recipients in their circumstances.

I am, &c.

Secretary Marine Department, Board of Trade, Whitehall, London. (signed) *Tho. Robertson*, Secretary.

No. 1.—List of Members and Widows of Members, Pensioners on the New Fund of the Trinity House, *Leith*, at 15 March 1861, who, should they at any time not be possessed of more than Twenty Pounds yearly, excepting what they receive from the said New Fund, have, in terms of Act 1 Geo. 4, c. 37, s. 12, a contingent right, on application, to be placed on the Prime Gilt or Old Fund at Twenty Pounds and Fifteen Pounds per annum respectively, or such other sums as in the opinion of the Corporation the said Prime Gilt or Old Fund will admit:—

NAME,	AGE.	NAME.	AGE.	NAME.	AGE.
Fowler, David - -	72	Sibbald - widow	83	Straiton - widow	65
Cochrane, John -	72	Strong - „	76	Robertson - „	45
Ritchie, Archibald -	80	Litster - „	82	Forrest - „	55
Roxburgh, David -	76	Muckle - „	70	Bisset - „	50
Morrison, Daniel -	66	Young - „	65	Reid - „	38
Gavin, William -	63	Grindlay - „	82	Mackie - „	58
Note.—The wives of these members will, when widows, have also a similar contingent right.		Wright - „	72	Younger - „	46
		Pearson - „	49	Scott, Jessie „	41
		Dick - „	68	Scott, Mary „	74
		Parker - „	80	Swanston, Catherine widow	42
		Swanston - „	56		
Bishop - widow	87	Jarvie - „	66	Robertson, Jane „	49
Rannie - - „	73	Smith - „	59	Morrison, Mary „	55

Trinity House, Leith, 25 September 1861. *Tho. Robertson*, Secretary.

No. 2.—List of Members and others who have a contingent claim on the Prime Gilt or Old Fund, in respect that, after attaining Sixty years of age, and not being possessed of more than Twenty Pounds yearly of Income, excepting what they receive from the New Fund of the Trinity House, are entitled to be placed on the Roll at Twenty Pounds yearly, or such other sum as in the opinion of the Corporation the Fund will admit, in conformity with the Act 1 Geo. 4, c. 37, s. 12. The Widows of these Members and Children until they reach the age of Fourteen years, in respect of the contingent right of the Husbands and Fathers, are also entitled to be placed on the Roll of Pensioners at Fifteen Pounds per annum, or such other sum as, in the opinion of the Corporation, the Fund will admit, if they are not possessed of more than Twenty Pounds yearly, excepting what they received from the New Fund of the House:—

NAME.	AGE.	NAME.	AGE.	NAME.	AGE.
Allan, David Tait -	45	Morison, George -	60	Riddock, William -	38
*Barry, Mrs. Mary Ann	47	Murray, John - -	59	Sinclair, Robert -	58
Deas, Robert - -	47	Munro, Daniel -	55	Swanson, Donald -	47
Duncan, Sebastian -	52	*McGlashan, Mrs. Jane	45	Souter, David -	42
Ferguson, Charles -	49	Paton, Walter, senior	72	Scott, Frederick -	42
Fernie, William -	38	Paton, Walter, junior	35	Simpson, John Annan	39
Gunn, Alexander Bartholomew.	46	Punton, John - -	35	Stewart, Daniel -	39
		Pratt, John - -	39	Thomson, Robert -	46
Lindsay, Thomas -	44	Robertson, Thomas -	42		

* These were members' widows who again married, and are entitled to be replaced on the roll on decease of their present husbands, on same conditions as widows of members.

Trinity House, Leith, 25 September 1861. *Tho. Robertson*, Secretary.

Trinity Corporation of Leith.

No. 3.—List of Mates and their Widows, Pensioners on the Prime Gilt or Old Fund, as on 15 March 1861.

NAME.	AGE.	Rate per Annum. £. s. d.	NAME.	AGE.	Rate per Annum. £. s. d.
Mackintosh, William -	72	12 12 –	Widow Lockhart - -	56	12 – –
Humphrey, John - -	69	12 12 –	„ Gavinson - -	61	12 – –
Munro, David - - -	64	12 12 –	„ Lyall - - -	58	12 – –
Lyall, John - - -	63	12 12 –	„ Stewart - -	65	12 – –
Currie, Adam - - -	63	12 12 –	„ Scott - - -	64	12 – –
Widow Scott - - -	58	12 – –	„ Drummond - -	63	12 – –
„ Wildgoose - -	54	12 – –	„ Duncanson - -	41	12 – –
„ Cousins - -	60	12 – –	„ Morrison - -	60	12 – –
„ Guthrie - -	42	12 – –	„ Taylor - -	52	12 – –
„ Bruce - - -	57	12 – –			

Trinity House, Leith, 25 September 1861.

Tho. Robertson, Secretary.

No. 4.—List of Mates who have a Contingent Claim, on attaining Sixty years of Age, to be placed on the Roll of Pensioners on the Prime Gilt or Old Fund, at Twelve Pounds Twelve Shillings per annum, and their Widows at Twelve Pounds per annum. Should they leave Orphans, such also will be entitled to Annual Sums, until they reach Fourteen years of age, as the Fund, in the opinion of the Corporation will admit:—

NAME.	AGE.	NAME.	AGE.
Anderson, George - - - -	60	Kerr, Daniel - - - -	49
* Archibald, Mrs. Joan - - -	55	Lockhart, John - - - -	40
Adams, John - - - -	35	Meiklereid, David - - -	53
Donaldson, James - - -	59	Mailler, Robert - - - -	48
Galloway, John - - - -	51	M'Queen, William - - -	45
Galloway, Alexander - - -	59	Sinclair, William - - -	52
Greig, John - - - - -	44	Thomson, George - - -	42
Jamieson, Thomas Hislop - -	38	Watt, James - - - -	57
Johnston, James - - - -	38	Watson, Thomas Turiff - -	45

* A mate's widow who again married, and is entitled to be replaced on the roll on decease of her present husband.

Trinity House, Leith, 25 September 1861.

Tho. Robertson, Secretary.

No. 5.—List of small Pensioners (poor old or infirm Seamen), and Widows and Children of Seamen on the Prime Gilt or Old Fund, as on 15 March 1861.

Should any of these Pensioners leave Widows, they will be substituted in their room; and should the Widows at present on the List die, leaving Children, these Children will be continued till they reach 14 Years of Age.

NAME.	AGE.	RATE PER MONTH. £. s. d.	NAME.	AGE.	RATE PER MONTH. £. s. d.
Arthurson - - widow	65	– 2 –	Bigg - - - widow	59	– 2 6
Alberton - - „	67	– 2 –	Baker - - „	67	– 3 –
Allan, Ann - - „	60	– 2 –	Burnett - - - „	76	– 2 6
Anderson, Barbara „	70	– 2 6	Bain, imbecile son „	47	– 3 6
Anderson, Ann - „	55	– 2 6	Brims - - „	66	– 2 6
Allan, Sarah - „	78	– 2 6	Buchan, William - -	78	– 3 –
Adams - - „	53	– 2 6	Barr - - - - widow	63	– 2 6
Anderson, Mary, two children - „	32	– 2 –	Brotherton, Janet „	53	– 3 –
			Bruce, Jean - „	62	– 2 –
Adamson, Ann four children - „	50	– 2 –	Brown, Janet - „	73	– 2 6
			Brotherton, Jessie „	37	– 3 –
Amos, John - - -	61	– 2 6	Brown, Grace - „	68	– 2 –
Anderson, Jane - widow	63	– 2 –	Banks, Archibald - -	69	– 3 –

Trinity Corporation of Leith.

List of small Pensioners, Widows, and Children of Seamen, &c.—*continued.*

NAME.		AGE.	RATE PER MONTH. £.	s.	d.
Bruce	widow	66	–	2	6
Berwick, James		73	–	3	–
Burgess, Nicol, paralytic		54	–	3	–
Baxter, Andrew		59	–	2	6
Bews, three children,	widow	52	–	3	–
Berry, Mary		13	–	2	–
Begg, Mary, five children	widow	37	–	3	–
Calder	widow	65	–	2	6
Christie	„	66	–	2	6
Clark	„	66	–	2	6
Cunningham	„	60	–	3	–
Clark	„	50	–	2	6
Clark, Mary	„	66	–	2	–
Cunningham	„	77	–	2	6
Culbertson	„	52	–	2	–
Clerk, Jane	„	37	–	2	6
Charlestown, Ellen, four children	„	46	–	2	6
Christie, Catherine	„	57	–	2	–
Corbett, Jean	„	64	–	2	–
Cuthbert, Andrew		69	–	3	–
Clyde, Robert		63	–	2	6
Carnie, Robert		76	–	3	–
Comb, Thomas		73	–	3	–
Clark, Elizabeth, four children	widow	41	–	3	–
Drysdale	widow	65	–	2	6
Dennis, Ann	„	75	–	2	6
Dobbie, Marion	„	74	–	2	6
Drummond, Margaret	„	57	–	2	–
Douglas, James		56	–	2	6
Darge, Sarah	widow	59	–	2	–
Douglas, Alison	„	51	–	2	–
Dick, Margaret	„	61	–	2	–
Dennis, Elizabeth, four children	„	38	–	3	–
Dickson, Marion, six children	„	„	–	3	–
Drake, Jane	„	58	–	2	6
Easton, George, orphan		12	–	1	6
Foster	widow	61	–	2	6
Flucker, David		71	–	3	–
Fletcher, Margaret, three children	widow	40	–	3	–
Foulks, William, in bad health.		49	–	2	6
Ferguson, Ann, four children	widow	35	–	3	–
Gilbert	widow	54	–	2	6
Gerrard	„	58	–	2	6
Gilbertson	„	60	–	2	6
Gellatly, Grace	„	63	–	2	6
Gunn, Charles		65	–	3	–
Greig, Agnes	widow	67	–	2	6
Gourlay, Mary	„	75	–	2	6
Gardener, Jean	„	72	–	2	6
Guy, Margaret	„	76	–	2	6
Glover, Elizabeth	„	43	–	2	–
Gribble, Jane, five children	„	43	–	3	–
Hunter	widow	66	–	2	6
Hay, Louisa	„	76	–	2	6
Henderson, Isabella, three children	„	36	–	2	6
Henderson, Lawrence		65	–	3	–
Henderson, William		41	–	3	–
Hoodless, Catherine, six children	widow	46	–	3	–
Hay, Margaret, three children	widow	48	–	2	–
Hasil, William		67	–	2	6
Johnstone	widow	80	–	2	6
Johnstone	„	55	–	2	6
Jack	„	75	–	2	6
Isbister	„	66	–	2	6
Johnstone, Margaret	„	78	–	2	6
Joyce, Agnes	„	41	–	2	6
Irvine	„	72	–	2	6
Jeffrey, Isabella	„	49	–	3	–
Johnstone, Catherine	„	71	–	2	–
Jackson	„	59	–	2	6
Johnston, William		63	–	2	6
Johnstone, Gideon		63	–	2	6
Jarvil, George		75	–	3	–
Johnstone, Elizabeth, two children	widow	49	–	2	6
Innes, John		60	–	2	6
Kenley, Ann	widow	54	–	2	–
Lewins	widow	75	–	2	6
Lawson	„	63	–	2	6
Louttit	„	60	–	3	–
Lyall	„	62	–	2	6
Loney, Jean	„	57	–	2	6
Lyle, Jane	„	45	–	2	6
Lumsden, Catherine	„	44	–	2	6
Lizars, Ellen	„	49	–	2	6
Litster, Euphemia	„	53	–	2	6
Love, Isabella, four children	„	42	–	3	–
Lawson, John		63	–	3	–
Matthew	widow	66	–	2	6
Marr	„	73	–	2	–
Murdoch	„	66	–	2	6
Miller, Ann	„	70	–	2	6
Mitchell, Christina	„	70	–	2	6
Marshall, Ann	„	59	–	2	6
Manson, Agnes	„	59	–	2	6
Meikle, Margaret, seven children	„	51	–	3	–
Murray, Margaret	„	77	–	2	6
Murray, Isabella	„	50	–	2	6
Mumford, Euphemia three children	„	34	–	3	–
Mitchell, Isabella	„	68	–	2	6
Morrison, Janet	„	66	–	2	–
Milliken, Alice	„	65	–	2	–
Miller	„	81	–	2	6
Middleton, Ann, two children	„	43	–	2	6
Montague, Maria, five children	„	39	–	3	–
Miles, William		62	–	3	–
Meekison, Frederick		66	–	3	–
Muir, Ann, two children	„	58	–	2	6
Munro, Agnes	„	50	–	2	6
Melvin, Catherine, four children	„	39	–	2	6
Middleton, James		61	–	2	6
Morris, William		65	–	2	6
M'Laren	widow	63	–	2	6
M'Donald	„	77	–	2	6
M'Intyre	„	70	–	2	6
M'Leod	„	79	–	2	6
M'Gill	„	61	–	2	–
M'Caskill, Mary	„	50	–	3	–
M'Lean, Agnes	„	45	–	2	6

Trinity Corporation of Leith.

List of small Pensioners, Widows, and Children of Seamen, &c.—*continued.*

NAME.	AGE.	RATE PER MONTH. £.	s.	d.
M'Vicar, Mary Ann, four children - widow	44	–	3	–
M'Kenzie, Jane - „	58	–	2	6
M'Leod, Jessie, five children „	35	–	2	6
M'Intyre, Margaret, four children „	39	–	3	–
M'Kenzie, five children „	35	–	2	6
M'Gregor, Agnes, three children „	28	–	3	–
Noble - widow	61	–	2	6
Niven - „	45	–	2	6
Nicolson - „	69	–	2	6
Neill, Isabella - „	51	–	2	–
Newall, Alexander -	51	–	2	6
Orrick, Janet - widow	51	–	2	–
Orr, Jane, six children - „	44	–	3	–
Penman - „	61	–	2	6
Pevalish - „	70	–	2	6
Paterson, Margaret - „	64	–	2	6
Petrie, Jane - „	51	–	2	–
Petrie, John, five children	47	–	3	–
Paton, David	67	–	2	6
Peat, Mary	35	–	2	–
Prummer, Louisa - widow	50	–	2	6
Pettigrew, Betsy - „	64	–	3	–
Robertson, Janet - „	66	–	2	6
Rowan, Catherine - „	60	–	2	–
Ross, Barbara - „	54	–	2	6
Robertson, Barbara - „	56	–	2	–
Reid, George	69	–	3	–
Reid, Jemima - widow	55	–	2	–
Robb, James	70	–	3	–
Reid, Ann - widow	69	–	2	–
Rollo, John	64	–	2	6
Richmond, Mary -	51	–	2	–
Rae, Christina - widow	53	–	2	–
Richmond, Helen	49	–	2	–
Robertson, John	68	–	2	6
Robertson, Janet, four children - widow	43	–	3	–
Robertson, Margaret „	57	–	2	6
Skinner „	68	–	3	–
Sangster „	65	–	3	–
Shaw „	69	–	2	6
Stewart „	70	–	2	6
Skinner „	73	–	2	6
Strachan „	62	–	2	6
Scott, Oliver „	60	–	3	–
Small „	60	–	2	6
Steel „	73	–	2	6
Smith, Susan „	65	–	2	–
Stenton, Mary „	55	–	2	–
Scott, Ann „	75	–	2	6
Smith, Jane „	60	–	2	–
Smith, Helen, three children „	53	–	3	–
Scott, Agnes „	43	–	2	–
Sinclair, Janet „	57	–	2	–
Scott, John	74	–	2	6
Scott, Mary, four children widow	48	–	2	–
Strachan, Ann - widow	62	–	2	6
Skae, John	65	–	3	–
Thomson - widow	69	–	2	6
Taylor „	64	–	2	–
Thomson „	69	–	2	6
Tait, Elizabeth „	66	–	2	6
Toll, Robert	71	–	3	–
Turnbull - widow	64	–	2	6
Thomson, Ann - „	51	–	2	–
Tait, Margaret - „	58	–	2	6
Tait, William	59	–	2	6
Thomson, Elizabeth, widow	56	–	2	6
Turnbull, Margaret, four children „	40	–	2	6
Thomson, Margaret - „	69	–	2	–
Thomson, Christina - „	65	–	2	–
Thomson, Leonard	61	–	2	6
Wilson „	75	–	2	6
Ward „	70	–	2	6
Williams, William	70	–	3	–
Wells, Margaret widow	57	–	2	6
Williamson, Janet - „	45	–	2	6
Wilson, John (blind)	49	–	3	–
Wilson - widow	75	–	2	6
Wallace, Ellen - „	64	–	2	–
Walters, Margaret - „	61	–	2	–
Wilkie, Margaret - „	60	–	2	6
Williamson, Euphemia „	66	–	2	–
Wright, William	68	–	3	–
Watson, Robert	64	–	2	6
Ward, James	69	–	2	6
Wallace, Annie, three children widow	47	–	3	–
Wilson, David	67	–	3	–
Williamson, Margaret, six children widow	41	–	3	–
Woodburn, Catherine, four children „	29	–	3	–
Wallace, David	60	–	2	6
Widow Cairns	68	–	2	6
„ Collins	39	–	2	6
„ Mitchell	63	–	2	6
„ Robertson	49	–	2	6
„ Murray	58	–	2	6
„ Garrick	60	–	2	6
„ Warrick	36	–	2	6
„ Marks	68	–	2	6
„ Cruickshanks	76	–	2	6
„ Lowrie	60	–	2	6
„ Meiklereid	74	–	2	6
„ Scott	53	–	2	6
„ Melvin	29	–	2	6
„ Simpson	57	–	2	6
„ Dickson	73	–	2	6
„ Burns	68	–	2	6
„ Bowie	87	–	2	6
„ Arthurson	60	–	2	6
„ Sutherland	70	–	2	6
„ Strachan	74	–	2	6
„ Smart	65	–	2	6
„ Alison	61	–	2	6
„ Craigie	89	–	2	6
„ Bernardes	76	–	2	6
„ Smith	68	–	2	6
„ Swanson	60	–	2	6
„ Bell	67	–	2	6
„ Strachan	50	–	2	6

All the foregoing pensioners have been in use to receive one shilling additional on New Year's Day, and which payment will be continued to them.

Tho. Robertson, Secretary.

Trinity House, Leith, 25 September 1861.

Trinity Corporation of Leith.

No. 6.—List of Quarterly Pensioners (Poor, Old, or Infirm Seamen) on thePrime Gilt or Old Fund, at Three Pounds per annum.

NAME.	AGE.	NAME.	AGE.
Young, James	75	Smith, Arthur	71
Grieve, James	78	Hastie, Thomas	71
Hislop, William	74	Sinclair, Peter	74
Stewart, Charles	69	Pottinger, James	63
Robertson, George	67	Blanthorne, Frederick	64
Duncan, Gideon	65	Griffiths, William	70
Sandilands, Alexander	63	Wright, James	75
Wishart, David	75	Scott, William	71
Stark, Archibald	71	Watters, John	73
Miller, Peter	70	Moncrieff, Robert	71
Thomson, John	75	Stout, Alexander	73
Gray, Walter	67		

Tho. Robertson, Secretary.

Trinity House, Leith, 25 September 1861.

No. 7.—List of Payments for the relief of Poor Sailors, their Widows and Families, in accordance with the 12th section of Act 1 Geo. 4, c. 37, which the Trinity House have been in the use of paying for a long series of years, and which will be continued on the Prime Gilt or Old Fund.

	£.	s.	d.	£.	s.	d.
Casual charities to poor sailors in Leith and neighbourhood, their widows and families (average of last three years)				6	11	–
Ditto to poor and shipwrecked sailors of other ports, passing home (average of last three years)				17	15	6
Education of poor seamen's children at Dr. Bell's school (average of last three years)				10	–	–
Charities Annually:						
Destitute Sick Society	2	2	–			
Boys' Charity School Society	3	3	–			
Royal Infirmary	2	2	–			
Indigent Old Women Society	1	1	–			
Seamen's Friend Society	5	–	–			
Humane Society	2	2	–			
Blankets for poor sailors	1	1	–			
Shipwrecked Fisherman Magazine Society	1	1	–			
				17	12	–
			£.	51	18	6

Note.—These contributions to the above societies are made, as poor seamen and their families are materially benefited by their operations.

(signed) *Tho. Robertson*, Secretary.

Trinity House, Leith, 25 September 1861.

BYE-LAWS or Constitutions of the Corporation of Master and Assistants of the Trinity House, *Leith*, with Tables framed according to the Principles laid down in the Correspondence with *William Morgan*, Esq., F.R.S., *London*.

Bye-Laws of the Trinity House of *Leith*.

Trinity House, Leith, 4th December 1832.

Special General Meeting.

The Master, in the chair, stated to the meeting that they were convened per remit from last quarterly general meeting, regarding the proposed alterations and revisions in the bye-laws, previous to their being reprinted, as also conform to the 49th constitution of the present code; and the particular parts of the minutes of meetings relative thereto having been read, namely, special general meeting of 20th July last, and committee of management

ment, 9th of October, the meeting unanimously resolved that the following 48 Constitutions shall be substituted in lieu of all former ones, which are hereby repealed, and to be of no further effect, from and after the 31st day of December 1832. *Trinity Corporation of Leith.*

Robert Bruce, Master.

At a special general meeting of the corporation, held 13th December 1836, an addition was made to the 8th constitution, and the 49th constitution was added.

John Smith, Master.

At a special general meeting of the corporation, held 2d December 1851, an alteration was made on Constitutions 8th and 14th.

John Smith, Master.

THE following are according to the revision made in December 1832, and added to 13th December 1836 and 2d December 1851:

CONSTITUTIONS.

1. THE master, assistant master, deputy master, treasurer, or a committee to act in lieu of a treasurer, twelve managers, and a clerk shall be elected on the last Monday of the month of December yearly; but the clerk shall be elected under the conditions expressed in Constitution 45. Office-bearers, when elected.

2. The members of this corporation are henceforth absolved from guaranteeing the payment of the sailors' poor money, commonly denominated poundage money, and interdicted from making any deduction from their wages, as the custom of making deductions from seamen's wages had been abolished at the date of his Majesty's Royal Charter in 1797. Members absolved from guaranteeing sailors' poor-money

3. The annuities, pensions, &c., shall be regulated according to the 5th, 6th, and 7th sections of the Act of Parliament; but any member under the age of 60 years, applying for relief or supply, shall not, upon any account whatever, be allowed more than half the annuity given to full aged annuitants, and that during the applicant's indisposition only, or while he is under the age of 60 years, viz. (*see* Minute, 9th October 1832):—To each indigent fellow member above the age of 60 years, making application according to the form subjoined to Constitution 14, and whose annual payments shall have been regularly accounted for up to the time of his application— Specification of the annuities paid.

To each master's widow.
To each mate.
To each widow of this class.
To each sailor.
To each widow of this class.

4. The keeper of the Trinity-house shall be allowed a salary of 24*l.* sterling per annum and a free house, coals and candle, &c.; but no member of the first class shall be appointed to this office.

5. To extend the charitable views of this corporation, it is resolved that 24 poor, old and infirm sailors shall be taken, in the order of their applications, provided that every such applicant can be fairly considered an object of charity, and that he has been a residenter in the town of Leith or city of Edinburgh, for the last seven years preceding the date of his application, and that he bears a general good character, and that he is by certificate, which must be produced, above 60 years of age; then he shall be enrolled in his respective class at 15*s.* per quarter; and upon the decease of any of these pensioners, the vacancy caused thereby shall be filled up with another of the like description; and the widows of this class of persons, if above the age of 60 years, shall be admitted on the pension roll at 2*s.* 6*d.* per month, but shall not exceed 24 in number. Twenty-four old seamen to be classed and paid quarterly.

6. Every member who goes to sea in the accustomed manner, whether he makes one or more voyages in the year, shall pay one guinea per annum; and those who do not go to sea shall pay only half-a-guinea each per annum; mates, whatever way they may be employed, shall pay 15*s.* each per annum, and sailors, 10*s.* each per annum. Annual payments by masters, mates, and sailors.

7. Any shipmaster of a sound, healthy constitution, whose age does not exceed 36 years, having a certificate of his general good character, attested by two members of the corporation, and he having the command of a ship or other vessel belonging to the port of Leith or city of Edinburgh, and his family residing anywhere within the precincts of these places; and provided the applicant has really and truly, at some time or other, commanded a vessel in Mode of admission of a certain class of shipmasters.

Trinity Corporation of Leith.

the foreign trade, and is well qualified to conduct a ship to any quarter, although he may, at the time of his application, be employed in the coasting trade; the person so applying in these circumstances (if otherwise properly qualified and eligible as a member) shall be duly admitted, after being balloted for, in terms of Constitution 8; and if elected, he must pay down, before his name can be registered in the books, the sum corresponding to his age in the annexed Table for the first class; and in order to ascertain his age as correctly as possible, he shall produce, at the same time with his letter of application, an extract of his age, taken from the register of baptisms of the parish where he was born, signed by the session clerk, and certified as correct by the minister, or such other proof thereof as may be deemed sufficiently satisfactory by the committee of management; and failing to do so, he cannot be balloted for.

Mode of proceeding in balloting for applicants.

8. When any shipmaster makes application in terms of these constitutions, and the committee of management heve approved thereof, the master is hereby enjoined and directed to call a general meeting of the corporation to ballot for the candidate; but on the citations convening the meeting must be written the words, "To ballot for *A. B.*" [*here insert his name*]; and unless that a majority of the members present are for the admission, the application becomes rejected; and, further, every applicant for admission must be, previous to his application for admission, enrolled in the mate's class, and his entrance money paid; and he shall be present in the town of Leith on the day he is balloted for. And, in transferring any person from one class to another, no deduction whatever shall be made or given for the entrance money or annual payments that were received from him prior to the then transfer, with exception of cases provided for by Minutes of 25th April and 31st October 1831. And every applicant wishing to become a member shall be supplied with schedules, as recommended by Minutes of 13th, 17th, and 28th March, and confirmed by special general meeting of 9th December 1834; and that said schedules shall be filled in and approved of by the master (or the masters for the time being), previous to a meeting being convened to ballot for the candidate.—*See* Minute of 31st October 1837.

Indulgence to those unentered shipmasters enrolled in the mates' or sailors' class.

9. Any mariner, after being enrolled either in the mates' or sailors' class, and who may happen to be from home, lawfully engaged in the exercise of his profession, at the time when he comes to the age of 36, and being consequently precluded from making application to be admitted member, shall nevertheless be allowed six weeks, commencing from and after the day of his arrival in any part of Scotland, to make application and be admitted; provided as it is provided in Constitution 7, and that he does not exceed the age of 40 years. But if the applicant should go to sea again, in direct violation of this indulgence, without using the means of obtaining admission, he then forfeits for ever his right to admission.

Mates or sailors enrolled by order of the committee.

10. Any mate or sailor of a general good character who shall be employed, at the time of his application, in any vessel belonging to the port of Leith, or city of Edinburgh, provided that he is under 36 years of age, and upon his producing a certificate of his age from the register of baptisms of his native parish, may he enrolled in his class by order of the committee of management, on paying down the entrance money corresponding to his age in the tables in use at the time of his entry.

Privilege reserved to the sons or sons-in-law, &c., of master members.

11. When an application for admission is made by the son or son-in-law of any master member, and upon his being fairly elected, he shall be entitled to the privilege of being enrolled a member, on paying one-half only of the premium or entrance money corresponding to his age in the tables in use at the time of his entry; provided as it is provided in Constitution 8, and that he has the command of a ship or vessel belonging to any port or place in Great Britain or Ireland, and that he does not exceed the age of 36 years, except under the circumstance stated in Constitution 9, and that he is the son or son-in-law of a master member who had had the command of a ship or vessel belonging to the port of Leith or city of Edinburgh when he was admitted member. And any shipmaster who marries the widow of a deceased member shall be eligible on the like conditions.

How the daughter of a master member may lose her privilege, and privileges united confer no additional benefit.

12. The daughter of any master member who marries a man who is not a mariner by profession, forfeits for ever all and every right to privilege; and a member's widow or daughter cannot confer privilege more than once, unless it shall be to remove her from being a burden on the funds. And it is hereby expressly declared, that if two privileged persons unite by marriage, this union cannot confer any greater privilege or benefit on the applicant than he enjoyed before, that is, of being admitted on paying half the premium or entrance money corresponding to his age in the tables in use at the time of his entry.

An annuitant who marries cannot confer any privilege or advantage on his widow.

13. If any member of this corporation should marry after his being admitted on the annuitant's roll, or after having received a supply, the widow of such a marriage cannot have any claim on the funds, and therefore shall not, on any account or pretence whatsoever, be admitted an annuitant.

The mode by which members above 60 years of age, and widows, are to apply to be registered annuitants.

14. The written applications of members above 60 years of age, and widows of the first class, to be admitted on the annuitants' roll, shall be *verbatim* according to the form hereunto annexed; and every applicant is to sign it in presence of the clerk, who must witness the signature, but if any of them should be residing at a considerable distance from the town of Leith, the applicant's signature must be attested by the magistrate of the town or district wherein he resides; and this form of application, so signed and attested, must be addressed to the master, viz.:—

FOR MEMBERS ABOVE SIXTY YEARS OF AGE.

"Sir,—I, the undersigned member of the Trinity House of Leith, do most solemnly and conscientiously declare, that my age and infirmity have rendered me incapable of going to sea to acquire a livelihood by my profession, and in consequence thereof, my means of subsistence, or finances, are so very circumscribed and inadequate to my support, as to make it absolutely necessary for me to request you to enrol me an annuitant.—I am, Sir," &c.

FOR WIDOWS OF MEMBERS.

"SIR,—I, the undersigned relict of late a member of the Trinity House of Leith, do most solemnly and conscientiously declare, that, in consequence of my husband's decease, my means of subsistence, or finances, are so circumscribed, and inadequate to my support, as to render it absolutely necessary for me to request that my name be enrolled on the annuitant's list.—I am, Sir," &c.

The privilege of apprentices.

15. Any apprentice, upon having served his time regularly with a member of this corporation, during any period of time since the 1st day of January 1807, and his name having been registered in the mates' or sailors' class within the term of two years from the termination of his apprenticeship, and producing a certificate of his general good character, signed by his said master, shall be entitled to have an abatement of five per cent. of the premium or entrance money, corresponding to his age in the Table when he is admitted master member. But this privilege cannot be granted to the sons or sons-in-law of members who have already (according to the opinion given by William Morgan, Esq.) a privilege both illegal and injurious to the funds of this institution.

Penalties and forfeitures for default of annual payments.

16. In default of any member's annual payment not having been made for the space of two years or more (upon such annual payment having been demanded), he shall be liable to the following penalties and forfeitures, viz.:—For two years' default of payment, he shall pay double the sum due. For three years' default of payment, he shall pay triple the sum due. And if he be four years in arrears, he then forfeits all the benefits and privileges to which he became entitled when he was admitted a member, unless that he can show cause sufficiently satisfactory to the committee of management. Mates and sailors, when guilty of similar acts of neglect, shall be liable to similar penalties and forfeitures.

Supply to masters' widows and children.

17. The committee of management are authorised to consider the necessitous condition of masters' widows immediately before they come to be enrolled annuitants, and give each of them, who makes application in writing actually signed by herself, and addressed to the master, stating that she is in very indigent circumstances, the sum of 4 *l.* sterling, and for every child she has under the age of 14 years, 2 *l.* sterling, as a present supply; and the payment of the annuities to all newly registered annuitants shall commence on the first Monday of the next quarter after the committee of management, having been convened on any other business of the house, have given their assent for the enrolment.

Every widow claimant to prove that she is still the widow of such a deceased member.

18. Every widow now registered, or who shall hereafter be registered, an annuitant on the funds of this institution, shall appear personally when required, and make affidavit that she continues the widow of the deceased member in virtue of whom she claims the annuity: and, moreover, if it shall at any time be proven to the satisfaction of the committee of management that she cohabits with any man, or lives in a state of prostitution, her annuity shall be immediately stopped, and she shall not receive any further benefit whatsoever from the funds of this institution. And it is hereby enacted, that when any widow makes application, conform to the bye-laws for the time being, to be admitted on the annuitants' roll as the second or even a third time, having been severally (or each time) married to a member, she cannot on any account whatever be entitled to receive more than any other widow of the same class, with due observance to the 13th Constitution.

Inquiry to be made relative to the annuitants residing at a distance, and certificates produced, &c.

19. An inquiry shall be made respecting the annuitants and pensioners who do not appear personally every six months, and particularly respecting the annuitants who may be residing at a considerable distance from the town of Leith; and proper certificates of their being in life, and showing that they continue widows of the deceased persons through whom they derive their claims, must be produced half-yearly (if required), otherwise their annuities shall be stopped until this injunction be complied with; and that due notice be given by every widow, an annuitant, on the event of her entering into the marriage state again, even although it should not be with a seafaring person, that her annuity may be discontinued while she remains so married; and by her paying the customary annual rates, as if her first husband had been still alive, she shall in that case be entitled, as often as she becomes a widow, to the benefit of the annuity, in virtue of the claim through her first husband; but the orphan children of the first husband only shall be entitled to the allowance from the corporation, as expressed in the 21st Constitution, unless the future husband or husbands have been members; then, and in that case, each claims on his own right, and, also, provided the said widow has never become defaulter by the 16th Constitution.

Claims of orphan children, how regulated.

20. When a written application is presented on behalf of the orphan child or children of any member, that is, child or children who have neither father nor mother living, or on behalf of the orphan child or children of any mate or sailor, provided that they have

Trinity Corporation of Leith.

no means of support of their own, the committee of management are authorised to register them in their respective class or classes, where they are to be allowed such a sum or sums as are allotted to them by Constitution 21, until they arrive at the age of fourteen years, but no longer.

Allowance to orphan children.

21. The orphan children of any member (upon certificates of their ages being produced in due form), during the time they continue under the age of majority stated in Constitution 20, shall be allowed as follows, viz.:—For one child, 10*l.* 10*s.* per annum; for two children, 16*l.* per annum; for three children, 20*l.* 16*s.* per annum; and for four children, 28*l.* per annum. The orphan children of mates, provided they have no means, as in Constitution 20—one child, 2*l.* per annum; two children, 3*l.* 2*s.* per annum; three children, 4*l.* per annum; and for four children, 5*l.* 6*s.* 8*d.* per annum, until they arrive at the age of fourteen years, but no longer. And the orphan children of sailors shall also be allowed charitable relief.

Conditions on which supplies are to be given to annuitants of the second or third class.

22. The annuitants of the second or third class shall not be allowed any aid except their stated annuities, under any pretence whatsoever, unless it be such of them as may be in very needy circumstances, in consequence of a state of bad health; in which case, a supply may be given not exceeding 10*s.* sterling at any one time. And the widows of mates or sailors who have become defaulters, in terms of the 17th bye-law, shall be confined to similarly circumscribed charities.

Allowance for funeral expenses, when claimed.

23. The following funeral expenses shall be allowed, when claimed, for deceased annuitants only (see Minute, 4th December 1832), viz.:—For any member of the first class, 5*l.* sterling; for any member of the second class, 1*l.* 10*s.* sterling; and for any member of the third class, 1*l.* 5*s.* sterling. And the front of the Trinity House Gallery in North Leith Church, shall be put in mourning for two Sundays successively, on the decease of any member, or the wife or widow of any member; and this rule is to be strictly observed, without any distinction whatever.

How annual payments may be liquidated.

24. Any member of the first class may liquidate his annual payments (provided that he has given up going to sea) by paying 10*l.* 10*s.* into the master or treasurer's hands, for the benefit of the funds of this Institution.

Restrictions relative to seats in the Church.

25. None of the members of this corporation shall possess or engage any seats in North Leith Church beyond what shall be absolutely necessary to accommodate his own family, nor subset the seats on any pretext; and the committees for letting the seats are hereby directed to act in conformity to this regulation, and keep in view that members have a preferable right to the seats beyond all other applicants whatever.

Shipmasters being members of other corporations cannot be admitted.

26. An application for admission cannot be received on behalf of any shipmaster who is a member of any of the other corporations in the town of Leith; and master members, after they are admitted annuitants, shall not vote at or attend any meetings.

Annuitants of the second or third class how restricted if they go to sea.

27. Whenever any member of the second or third class shall go to sea, after having been enrolled annuitant, his annuity shall cease during the time he continues to be so employed.

Delegates to act by the instructions given them.

28. Whenever any delegates are chosen by this corporation, they shall act in the matter confided to them according to the instructions given them by the general meeting by whom they are chosen.

Petitions rejected, how presented a second time.

29. Whenever any petition for charity is presented on behalf of a mate or sailor's widow, it must be signed by herself, and be attested by the owner of any vessel belonging to the port of Leith, in whose employ the petitioner's husband sailed, as a proof that she is the very identical person represented in the petition, and that she is a legal residenter in Leith or Edinburgh; and (if required) the circumstances stated in the petition must be certified by two members of the corporation. But these shall not be managers.

The ordinary business of the society, how transacted.

30. The ordinary business of the corporation is transacted, on the first Monday of every month, by a committee, composed of the master and assistants and twelve managers; and any five members thereof, the master or any of his assistants being included, shall be a quorum. All decisions are obtained by majority; and the master or chairman shall vote only in cases of equality.

The mode of managing any motion upon new matter.

31. Every motion upon new matter shall be delivered in writing to the master or chairman, and read before the same is moved; and no question shall be put thereon, unless that it be seconded.

Temporary vacancies, how filled up.

32. Any vacancy occurring in the committee or offices is to be filled up, *ad interim*, by the committee of management, at its meetings, duly convened; and all its meetings are to be open and free to any of the members, who may on all occasions assist by advice, but not vote on debates, unless it be necessary to make up a quorum.

General and committee meetings; the time of, and how called.

33. General and committee meetings are called by order of the master or his substitute. Quarterly general meetings are held, in terms of the charter, on the last Monday of January, the last Monday of April, the last Monday of July, and the last Monday of October, yearly. For special meetings, see Charter Book, page 21.

The committee to form a list of persons fit to be elected.

34. Prior to all the elections that are to be made by general meetings, the committee of management shall form a list of such persons as are, in its opinion, fit to be elected, and submit

submit the result of its deliberations to the general meeting; not, however, precluding the nomination of any other person or persons by the meeting. *Trinity Corporation of Leith.*

35. The master or treasurer, as soon as he is elected into office, shall find two persons of respectability and affluence, and unconnected with the corporation, to join him in a bond of cautionary for his intromissions with the funds, in terms of the Act. The master to find sureties for his intromissions.

36. The master, or other person or persons acting as treasurer, shall have a correct state of his or their accounts made up every three months successively, as the Act of Parliament directs, in which must be included the sums of money received from masters, mates, sailors, and pilots, during the preceding quarter, together with all other sums of money whatsoever; so that fair and correct accounts of the receipts and expenditures shall be laid before the quarterly meetings, properly audited by the committee of management, or any other committee legally appointed for the purpose. How quarterly accounts are to be made up for auditing.

37. The master or treasurer shall lay before every quarterly meeting a correct state of his account-current with the Bank, relative to the floating funds in his hands. A state of the master's account-current with the bank.

38. There shall be no money, plate, or jewels, above the value of five pounds sterling, voted or given to any person, as a free gift or present, or to augment any allowance, stipend, or salary, or under any pretence whatsoever, unless that the words "money vote" be written on the circular citations calling the general meeting, to whose consideration the proposed measure is to be submitted. The mode to be observed in voting money above a certain sum.

39. The master is authorised and directed to convene the committee for examining any person who may make application to be authorised to act as pilot on the coasts of the North Sea or German Ocean, &c.; and, on his producing certificates of general good character, signed by two respectable shipowners or merchants residing in Leith, who are to be sureties regarding his annual payments, and for his returning the license whenever the corporation shall think proper to recall it, and if the applicant be found qualified, to license him accordingly; he paying, as the Act directs, one guinea per annum, commencing from the date of his license, and a like sum every year thereafter. And these annual payments are all that shall be demanded of him, the fees of office only excepted. Conditions on which persons are to be licensed as pilots.

40. The minutes of the meeting of managers shall be read to the subsequent general meeting, and read a second time, if required by any person present; and then, if not objected to, shall be held as confirmed. The minutes of the committee, how confirmed.

41. The Minute-book of the corporation shall not be carried out of the house, on any pretence whatever (see the Act, sec. 19); and care must be taken to have it regularly paged, so as to prevent any alteration being made in any of the minutes, contrary to what was meant and expressed by the meeting. The minute book, how regulated.

42. All charters, feu-contracts, deeds, and other instruments, of whatever nature, belonging to the corporation, shall be kept in the safe, under the custody and at the risk of the master and assistants; and none of them shall be lent or given out without their consent, and in terms of the Act of Parliament (sec. 19), and a sufficient letter of obligation obtained even from the agent engaged on the business of the Trinity House, wherein shall be noted the title and date of the paper so lent, and that he will return it whenever it shall be demanded. Charters, &c., how taken care of, or lent out.

43. All the surplus or spare moveable property (money) belonging to the corporation, shall be vested in the name of the master and assistants of the Trinity House of Leith, in the public funds, or lent on competent heritable securities; and if deposited with a banking company, it must be in the name of the Trinity House of Leith: and whenever any money is drawn or uplifted, it must be by an order from the master or treasurer, who shall be responsible. None of the securities shall be changed but by the consent of a general meeting legally convened, and in strict terms of the enactments of the Act of Parliament. Property, whether heritable or moveable, how disposed of.

44. A correct state of the gross revenue of the corporation shall be made out in the month of March, yearly; and the book containing it shall be laid on the table at all general meetings, to be inspected by any of the members. A state of the gross revenue to be made up annually.

45. The clerk shall be allowed £. sterling per annum, as a salary, to be paid to him in equal moieties half yearly; and he is now, and shall in all time hereafter, be elected for one year, or any shorter period, according to the pleasure of the parties. The clerk always elected during pleasure only.

46. The clerk is authorised to charge fees according to the following rates, viz.:— Fees payable to the clerk.

	£.	s.	d.
From every shipmaster, on his admission, with or without a letter of application		7	6
From every one licensed to act as pilot		7	6
From every mate or sailor, when enrolled		2	6
For every extract given to non-members		6	–
For every certificate given to any person		6	–
For every letter of application, &c., except when included as above		2	6
For a petition		3	–

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	£.	s.	d.
For writing an award in a matter not exceeding the value of £.15	–	8	6
For writing an award in any matter from £.15 to 25 £. in value	–	12	6
For every award from £.25 to £.50 value	1	1	–

Fees payable to the officer.

47. The following rates show the fees payable to the officer of the corporation, viz.:—

	£.	s.	d.
From every shipmaster, on his being admitted member	–	2	6
From every mate or sailor, on his enrolment	–	1	6
From every person licensed to act as pilot	–	2	6
For every award given by the committee	–	2	6

The mode which is to be observed in revising or altering any of these constitutions.

48. These constitutions, or any of them, may be revised or altered by a general meeting, regularly summoned for the purpose, on the first or second Tuesday of the month of December in any year, provided that a requisition be previously made by the managers, and laid before the quarterly meeting held in the preceding month of October, to obtain its sanction for the proposed revision or alteration, and that notice be given, three days before the meeting in December, of the intended revision or alteration. And further, the master is hereby enjoined and directed to refuse to give his assent to any revision or alteration whatsoever, but such as shall be made by and according to the forms herein expressed; and his refusal shall be a legal negative on the proceedings.

49. That in order to guard as much as possible against the expenditure of the corporation exceeding the income in any one year, it shall be incumbent on the master for the time being, to cause a statement to be made out, on or before the 15th March (when the statutory meeting takes place), of the supposed receipt and expenditure for the ensuing year, which shall be laid before the committee of management for their consideration, afterwards submitted to the above-noticed general meeting, with the view that the expenditure shall not exceed, but be kept within, the amount received yearly.

John Smith, Master.

TABLES.

This TABLE shows the Premium or Entrance Money to be paid on admission into the Masters' Class, according to the Augmentation of the Annuities in 1827 (as the Act directs), viz., from 24 *l.* and 28 *l.* to 26 *l.* and 32 *l.* per annum.

Age.	Entrance Money. £.	s.	d.	Age.	Entrance Money. £.	s.	d.	Age.	Entrance Money. £.	s.	d.
20	76	12	–	27	87	19	4	34	100	15	–
21	78	5	–	28	89	7	–	35	103	8	1
22	79	19	–	29	90	13	6	36	105	5	5
23	81	10	–	30	92	10	4	37	107	3	11
24	83	3	–	31	94	11	6	38	109	6	2
25	85	4	–	32	96	12	8	39	110	19	2
26	86	12	–	33	98	13	10	40	113	10	8

When the widows' annuity was raised from 24 *l.* to 26 *l.*, the entrance money was also raised 1-12th.

This TABLE shows the Premium or Entrance Money to be paid on admission into the Master's Class, according to the Augmentation of the Annuities in 1830 (as the Act directs), viz., from 26 *l.* and 32 *l* to 28 *l.* and 36 *l.* per annum.

Age.	Entrance Money. £.	s.	d.	Age.	Entrance Money. £.	s.	d.	Age.	Entrance Money. £.	s.	d.
20	82	9	10	27	94	14	8	34	108	10	–
21	84	5	4	28	96	4	5	35	111	7	2
22	86	2	–	29	97	13	–	36	113	7	4
23	87	15	4	30	99	12	8	37	115	8	9
24	89	10	7	31	101	17	–	38	117	14	4
25	91	15	–	32	104	4	4	39	119	9	10
26	93	6	6	33	106	5	8	40	122	5	4

When the widows' annuity was raised from 26 *l.* to 28 *l.*, the entrance money was also raised 1-13th.

Trinity Corporation of Leith.

This TABLE shows the Premium or Entrance Money to be Paid on admission into the Mates' Class, according to the augmentation of the Annuity (1st January 1828), viz., from 11 *s.* to 15 *s.* monthly, or 9 *l.* per annum.

Age.	Entrance Money.	Age.	Entrance Money.	Age.	Entrance Money.
	£. s. d.		£. s. d.		£. s. d.
20	6 2 8	27	10 11 4	34	15 9 6
21	6 12 3	28	11 1 8	35	16 2 –
22	7 3 2	29	11 9 1	36	17 7 8
23	7 13 4	30	11 17 3	37	18 13 7
24	8 3 7	31	13 2 6	38	19 5 10
25	9 7 6	32	13 19 7	39	19 18 10
26	10 3 5	33	14 17 3	40	20 16 7

15th January 1828.—Widows' annuity raised from 11 *s.* to 15 *s.* monthly. Entry money raised 4-11ths.

This TABLE shows the Premium or Entrance Money to be Paid on admission into the Mates' Class, according to the augmentation of the Annuity (1st January 1829), viz., from 15 *s.* to 20 *s.* monthly, or 12 *l.* per annum.

Age.	Entrance Money.	Age.	Entrance Money.	Age.	Entrance Money.
	£. s. d.		£. s. d.		£. s. d.
20	8 3 6	27	14 1 9	34	20 12 7
21	8 16 3	28	14 15 6	35	21 9 3
22	9 10 8	29	15 5 5	36	23 3 6
23	10 4 4	30	15 16 3	37	24 18 –
24	10 18 –	31	17 10 –	38	25 14 4
25	12 10 –	32	18 12 8	39	26 11 9
26	13 11 1	33	19 16 3	40	27 15 5

1st January 1829.—Widows' annuity raised from 15 *s.* to 20 *s.* monthly. Entry money raised 5-15ths.

This TABLE shows the Premium or Entrance Money to be Paid on admission into the Mates' Class, according to the rise of 7-8ths, per Minute of 25th April 1831, which is to be deducted if the Entrants become a Member in Four Years.

Age.	Entrance Money.	Age.	Entrance Money.	Age.	Entrance Money.
	£. s. d.		£. s. d.		£. s. d.
20	15 6 6	27	26 8 2	34	38 13 6
21	16 10 6	28	27 14 –	35	40 4 9
22	17 17 6	29	28 12 7	36	43 9 –
23	19 3 1	30	29 13 –	37	46 13 9
24	20 8 9	31	32 16 3	38	48 4 4
25	23 8 9	32	34 18 9	39	49 17 –
26	25 9 –	33	37 3 –	40	52 1 5

31st October 1831.—Quarterly meeting again confirms the rise of 7-8ths, and extends the time to four years, but not longer.

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ANNO PRIMO GEORGII IV. REGIS.

CAP. 37.

AN ACT for the Regulation of the Corporation of the Masters and Assistants of the Trinity House of Leith.—[23d June 1820.]

WHEREAS the Corporation of the Master and Assistants of the Trinity House of Leith, in the county of Edinburgh, formerly known by the name of "The Corporation of Shipmasters of the Trinity House of Leith," and now known by the name and style of "The Master and Assistants of the Trinity House of Leith," and now consisting of the master, assistant master, deputy master, twelve managers, treasurer and clerk, and other members whose names are hereinafter mentioned, has for time immemorial existed as a body corporate and politic, and has enjoyed sundry rights, liberties, privileges, and immunities, and in particular has enjoyed, and now enjoys the right of levying and exacting a certain rate or duty called primage or primegilt, that is to say, the sum of 1 *d.* sterling per ton, of all goods imported to Leith, either coastways or from foreign parts, and whether in British or foreign vessels: and whereas the said corporation obtained a Royal warrant, under the sign manual of his late Majesty King George the Third, dated the 29th day of June 1797, in the 37th year of his said Majesty's reign, ordaining a charter to be made and passed under the seal, appointed by the treaty of Union to be kept and used in Scotland, in place of the Great Seal thereof; in virtue of which, a charter was made and passed, and sealed with the said seal at Edinburgh, the 27th day of July following, constituting and confirming the said corporation a body corporate and politic, by the said name and style of the Master and Assistants of the Trinity-house of Leith, in the county of Edinburgh aforesaid, with all the powers, and subject to all the laws, constitutions, regulations and orders therein specified; and new granting and confirming to the said corporation and their successors, for ever, all the grants, liberties, privileges, immunities and powers enjoyed by them and the others therein specified and expressed, and particularly granting the right of licensing pilots for navigating all ships and vessels in the Firth of Forth, and seas and firths, and along the coasts and islands of the Northern and German Oceans, upon payment of fees, and under the reservations therein set forth: and whereas the said corporation has been and is highly beneficial not only to the individual members thereof, by the relief it has afforded and affords to many poor, old and infirm shipmasters and mariners and their widows and orphans, but has tended, and tends, greatly to promote and increase the trade and navigation of these realms in general, but more especially of Scotland, and of the said port of Leith: and whereas the claims upon the funds of the said corporation have of late years greatly increased, and are likely still farther to increase, so that it is become necessary to alter and amend the system of management, administration and distribution thereof; and it is also expedient and necessary that the constitution, powers, and privileges of the said corporation should be enlarged, confirmed and defined, and the rules and regulations for the government thereof be altered and amended: May it therefore please your Majesty that it may be enacted, and be it enacted by the King's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that John Hay, master; Thomas Grindlay, assistant master; William Gavin, deputy master; John Laurie, David Gourlay, Peter Gavin, Robert Bruce, John Boyd, James Duncan, Francis Taylor, James Turnbull, William Dick, John Charteris, John Sword, and Thomas Bishop, managers: John Hay, treasurer; Barry Sarsfield, clerk; and John Anderson, John Adamson, William Anderson, Robert Brown, John Brown, senior, Ebenezer Burton, James Butler, Roger Barr, John Brown, junior, Peter Barr, Charles Barr, John Beatson, David Brownhill, John Cummings, Thomas Calder, James Campbell, John Cochran, James Edmonston, John Finlay, Alexander Gordon, John Gordon, James Grindlay, Richard Gardner, Thomas Graham, John Henderson, James Hogg, William Hutton, Robert Henderson, James Henderson, James Jarvie, John Kellie, Robert Kellie, George Kellie, Robert Kirk, Robert Liddell, Peter Lockhart, William Lumsden, Magnus Liney, David Litster, Daniel Monroe, Alexander M'Laren, George Morison, William M'Laren, James Mack, James M'Luckie, George Norris, Archibald Neilson, David Norris, Archibald Pottinger, John Pearson, David Parker, William Ross, Joshua Richmond, James Rannie, David Roxburgh, Thomas Robertson, Archibald Ritchie, David Robertson, James Strong, George Steedman, Francis Spittall, William Steedman, William Sword, Walter Ferguson Syme, John Syme, James Sword, John Smith, Andrew Scott, Hugh Tough, John Tyrie, John Wishart, Charles Wildgoose, Robert Wishart, David Wright, Christopher Wilkie, George Watson, first, George Watson, second, James Wilson, William Young, Robert Young, John Yule, Alexander Young, John Young, first, John Young, second, and James Ferguson, members, are and they are hereby declared to be the master, assistant master, deputy master, managers, treasurer, clerk and members of the said corporation; and they and their successors, to be duly elected and chosen according to the regulations of the said corporation, shall be, and are hereby declared to be a body corporate and politic in deed and in name, by the name and style of "The Master and Assistants of the Trinity House of Leith," with perpetual succession, power to govern their own affairs, and for that purpose to make and alter bye-laws in manner hereinafter mentioned, to elect, appoint and displace office-bearers, and inferior officers and servants, and with all the rights, privileges, powers, liberties and immunities which they have enjoyed in time past,

The corporation confirmed as a body corporate and politic, with all former and usual powers and privileges, and grants, &c.

and

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and do now hold and enjoy, or which any like body corporate and politic doth or may enjoy by law.

Corporation may hold property.

2. And be it further enacted, that the said corporation and their successors shall in all time hereafter enjoy and possess, as such body corporate and politic, the house or edifice called the Trinity-house of Leith, with the whole pertinents and parts and pendicles thereunto presently belonging, and all other lands, edifices, houses, tenements and hereditaments, with the several and respective parts, pendicles, pertinents and appurtenances thereunto respectively belonging, and all other grants, gifts, liberties, immunities, privileges, perquisites, duties, profits and personal estate whatsoever, powers, warrant and authority, either specified and contained in the said Royal Charter, or which they have, by immemorial usage or any otherwise, heretofore lawfully enjoyed and possessed, or do or may now enjoy and possess, either by themselves or by any person or persons, in trust for them, or to which they are in any manner of way lawfully entitled, in full and ample terms, subject only to such modifications and alterations as may be introduced by the provisions and enactments of this Act.

May levy rates of primegilt.

3. And be it further enacted, that the said corporation and their successors shall be and they are authorised and entitled, by themselves, their collectors, officers, or others, to ask, demand, levy, receive, and recover to and for the use and benefit of the said corporation, from and upon all goods whatsoever imported to Leith, or all or any of the creeks and places within the limits thereof, whether coastways from any other port in Great Britain or Ireland, or from foreign parts, and whether in British, Irish, or foreign vessels, the foresaid rate or duty of primage or primegilt, viz., one penny sterling per ton upon all goods so imported as hitherto levied by them; and in case of refusal or neglect to pay such rates, or any part thereof, on demand, it shall and may be lawful to the said corporation, and they are hereby authorised to seize the goods for or in respect whereof any such rates ought to have been paid, or any part thereof, and detain the same until payment thereof, together with reasonable charges for such seizure and detention; and if such goods shall not be redeemed within 14 days next thereafter, all such rates, arrears thereof, and reasonable charges shall be raised and recovered by the said corporation by poinding, distraining, and sale of such goods, rendering to the owner or consignee, or other person having right to, or charge, or custody of such goods, the overplus, after deducting the reasonable charges of such distress and sale; or it shall and may be lawful for the said corporation, at their option, to sue the owner or consignee, or other person or persons to whom such goods may belong or be consigned, and who would, in virtue of the provisions hereinafter inserted, be liable in payment of the fees, rates, or duties of pilotage for all such rates or duties of primage or primegilt, in any competent court in Scotland.

Uses and application of the funds of the corporation.

4. And be it further enacted, that the entrance money and annual payments, now or hereafter exigible from the entrants and members of the said corporation; the annual payments now or hereafter exigible from mates, sailors, and pilots; the aforesaid duty of primage or primegilt payable to the said corporation; the yearly feu duties and casualties belonging to them; the rents of the seats belonging to them in the churches of south and north Leith; the yearly interest of all monies whatsover lent out by or due to them; and all dividends of monies vested in the national or government funds; and, generally, all and singular lands, tenements, hereditaments, and property of every description, and all and singular sum and sums of money, goods, gear, chattels, and effects whatsoever, real and personal, which now, or may, or shall at any time hereafter belong, become due, or be addebted to the said corporation, and are now or shall at any time hereafter be holden, enjoyed, possessed, or received by them in any manner of way whatsoever; shall, as heretofore, be applicable, and shall, under the provisions and regulations hereinafter enacted, be applied to and for the use, behoof, benefit and profit of the said corporation, and to and for the maintaining and repairing, or, when occasion may require, the rebuilding of the house or edifice belonging to the said corporation, commonly called or known by the name of the Trinity House of Leith; and of all other tenements, edifices, or almshouses which now or at any time hereafter may belong or appertain to the said corporation; and for the supporting and relieving such poor, old, or infirm persons as now are or may be members of the said corporation, and the wives or widows, or children of the members thereof who now are, or may hereafter fall into decay, misery, poverty, and need; as also for the relief of such other poor seafaring men, or their widows or children, as by the said corporation, or the majority of the members present at any of their general meetings, shall already have been, or shall be thought necessary and expedient, and that in such manner, and by such proportions, and according to such rules, orders, and regulations, or bye laws, not inconsistent with any of the provisions of this present Act, or repugnant to the law of Scotland as may be settled and directed by the said corporation; and for all such other public uses and purposes of the said corporation as may already have been, or may hereafter be declared by them, by any bye-law or order already passed, or to be passed and made by any general meeting of the said corporation, or the majority of members present at the same.

A statement of the gross and free revenue to be made up on the 15th March in each year.

5. And be it further enacted, that upon the 15th day of March yearly, after the passing of this Act, or as soon afterwards as possible, and at farthest on or before the 20th day of March yearly, a general statement or account, debit and credit, of the gross and free annual income or revenue of the said corporation, for the year ending upon the said 15th day of March, shall be made up by the master, treasurer, clerk, or other officer or officers entrusted and charged by the said corporation with such duty; which statement or account shall specify

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specify and contain, on the credit side, the gross return, income, or produce of the funds, or the gross revenue for the said year, under the various heads or particulars of which it is or may hereafter be composed, and on the debit side shall specify and contain all the ordinary and extraordinary expenses incurred during the year, in the management, collection, and distribution of the estates, funds, and revenues, and in the affairs of the said corporation, and all other proper charges against, and deductions from the said gross revenue, under the various heads, items, or particulars of which such expenses and charges may be composed; and the balance of which account shall show the true amount of the free income or revenue, all as nearly as may be, in conformity to the form or schedule (A.) annexed to this Act:

Entrance monies to form part of the capital of the funds.

providing always, as it is hereby provided and declared, that all entrance monies received from entrants shall form and compose part of the capital of the funds, and the interest thereof only shall form part of the yearly income or revenue.

Annual statement of the revenue to be examined and doqueted by the masters and managers.

6. And be it further enacted, that it shall be the duty of the masters and managers, and they are hereby required to cause such statement or account to be made out as aforesaid, and thereafter, and on or before the 25th day of March, the said masters and managers shall examine and check the same; and such statement when so examined shall be approved and doqueted agreeable to the form of the doquet subjoined to the said schedule (A.) annexed to this Act, and assigned by the master, assistant master, deputy master, and managers of the said corporation for the time being; or such of them as are not prevented by reason of sickness, absence from Scotland, or other incapacity; and, when so doqueted, shall be deemed, held, and taken to be the state and amount of the free produce or income of the funds, or free revenue for the year ending the said 15th day of March; and the masters and managers failing so to cause such account or statement to be made out, and to examine and check the same as aforesaid, shall be liable to suffer deprivation of office, by a vote of the majority of the said corporation, at a general meeting to be called for that purpose by the clerk, upon the requisition of any two individual members; which meeting the clerk is hereby required, under the like liability in case of failure, to call.

For 15 years 9-10th parts only of the free revenue to be expended on its uses.

7. And be it further enacted, that for the first 15 years from and after the first 15th day of March after the passing of this Act, nine-tenth parts, and no more, of the said free annual income or revenue, to be ascertained in manner above directed, shall be annually applicable, and applied for and to the use and behoof of the various classes or descriptions of annuitants and pensioners upon the said funds, as they now are or may at any time hereafter be classed, and in the proportions now or at any time hereafter to be fixed, and according to the general orders, constitutions, and regulations for their payment already or to be at any time hereafter lawfully made and passed by the said corporation, or a majority of them, in manner after provided, and to and for all the other uses and purposes to which the said funds and revenue now are or may hereafter be lawfully applicable.

Remaining 1-10th part to be accumulated.

8. And be it further enacted, that the remaining one-tenth part of the said free yearly revenue, with all interest accruing thereon, shall, for the space of the said 15 years, be set apart, and remain untouched, as an accumulating fund or capital, for the augmentation of the permanent income and revenue of the said corporation.

After 15 years, the interest of accumulated fund to augment the yearly revenue.

9. And be it further enacted, that from and after the expiration of the said 15 years, the yearly interest or produce of the fund or capital, to be accumulated as before directed, shall go to augment, and be deemed and considered part of the said yearly revenue, and shall be applicable, and be applied to the same uses and purposes; and for the space of 25 years thereafter nine-tenth parts, and no more, of the said augmented free yearly revenue, to be ascertained in manner above directed, shall be annually applicable and applied to and for the uses and purposes aforesaid; and the remaining one-tenth part, with all interest accruing thereon, shall be set apart, and remain untouched, as an accumulating fund or capital, for the farther permanent augmentation of the said yearly income or revenue.

For 25 years afterafterwards.

The accumulated funds to form part of the capital, and the yearly produce of them part of the yearly revenue.

10. And be it further enacted, that the fund or funds, to be accumulated in manner before directed, shall thereafter be preserved and compose part of the capital or stock of the funds of the said corporation, and the yearly interest or produce of the same shall be and form part of the yearly revenue of the said corporation; and from and after the expiration of the said two periods of 15 years and 25 years, the total augmented free yearly income or revenue of the said corporation, to be ascertained in manner before directed, shall be applicable and applied for and to the uses and purposes above specified, in manner hereinafter mentioned.

After said two terms of 15 years and 25 years, the duty called primegilt to form a distinct branch of the revenue.

11. And be it further enacted, that from and after the expiration of the above two terms of years, the aforesaid rate or duty, commonly called primage or primegilt, payable to the said corporation, shall in all time to come constitute a distinct branch of their revenue, and shall always be kept separate and apart from all the other property or revenue at any time belonging to the said corporation; and a regular and distinct account of the said rate or duty shall be entered in a separate book, to be kept for the special purpose, (and in which no other monies whatever shall be entered); to the credit-side of which account shall be specifically entered all the several sums of money levied and received for or on account of the said rate or duty, of the respective dates upon which such sums are received; and to the debit side shall be entered all the items of the expense of levying and collecting, and of all the other charges and expenses whatever incurred in relation to the said rate or duty, in any manner of way; which account shall be balanced upon

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upon the 15th day of March, and the balance shall show and compose the amount of the free revenue or income arising from the said rate or duty for the year then ended; and upon the said 15th day of March, or at farthest on or before the 20th day of the said month in each year, there shall be framed a separate specific statement of the free revenue arising from the said rate or duty for the said year; which statement shall be made out, examined, corrected, approved, and doqueted by the masters and managers of the said corporation within the time before prescribed; and when so doqueted shall bear faith, in manner before directed and provided, in relation to the general revenue of the said corporation.

Uses and application of said duty, which is to be called the old fund.

12. And be it further enacted, that after the expiration of the two periods aforesaid, the said duty of primage or primegilt shall constitute and be denominated the old fund; and the free yearly revenue arising therefrom, to be ascertained in manner above directed, shall be chargeable and charged with a sum not exceeding 15 pounds per centum upon its amount, to be applicable and applied to the repairing and maintaining, and, when occasion may require, the rebuilding of the aforesaid house or edifice, called the Trinity House of Leith; and to the defraying a proportion of the ordinary expenses incurred in the management of the affairs of the said corporation; and the residue, after deduction of the said percentage, shall be exclusively applicable, and applied in manner after provided, to the supporting and relieving such poor, old, or infirm members of the said corporation, as may or shall be enrolled by them as annuitants, and shall appear to the satisfaction of the committee of management of the said corporation, from a particular and specific statement of the means and property of such members to be produced by them and attested upon oath, not to be possessed of means or income of any description, exclusive of their annuities or pensions from the new fund of the said corporation hereinafter mentioned, exceeding the amount of 20 pounds sterling yearly; and also to the supporting and relieving the wives, widows, and children of such members, and also such poor, old, or infirm seafaring men of the class of mates and sailors, and their wives, widows, and children, as shall, by any general meeting of the said corporation, or the majority of the members present at the same, be considered proper and fit objects of such relief; and this always in such manner, and in such proportions, and according to such general orders, rules, and regulations, as the general meetings of the said corporation, or the majority of members present at the same, shall from time to time direct, approve of, and establish, in manner hereinafter provided.

The other property and funds to constitute one general fund, to be called the new fund.

Uses and application of the new fund.

13. And be it further enacted, that all the estates, funds, property, means, and sources of income or revenue of every description, heritable and moveable (excepting only the aforesaid rate or duty of primage or primegilt), which shall, at any time to come after the expiration of the aforesaid two terms of years, belong to, or be enjoyed by the said corporation, shall constitute, and shall be kept as one general fund, to be denominated the new fund; and a separate statement of the gross and free yearly income or revenue of the said general fund, shall, from and after the period aforesaid, be annually made up, examined, corrected, approved, and doqueted within the time and in manner above directed; and the free yearly income or revenue arising from the same, to be so ascertained, shall be applicable, and applied to and for the use, behoof, benefit, and profit of the said corporation, and to and for the repairing and maintaining, and, when occasion may require, the rebuilding of the aforesaid house, called by the name of the Trinity House of Leith, and of all other houses, tenements, edifices, or almshouses, which shall then, or at any time thereafter, belong or appertain to the said corporation; and to and for the defraying of all charges and expenses to be incurred in the management of the affairs of the said corporation, so far as the aforesaid purposes are not answered and provided for, out of the portion of the old fund applicable thereto in manner before-mentioned; and to and for the supporting and relieving such members of the said corporation, and other seafaring men, as shall have been regularly admitted or enrolled by the said corporation in their respective classes, on payment of the usual entrance money, and such of the wives, widows, and children of such members as may then be, or may thereafter fall into decay, poverty, and need, and as shall then or thereafter be enrolled by the said corporation as annuitants, and that in manner, and in the proportions, and subject to the general rules and regulations hereinafter-mentioned; and for all such other public uses and purposes of the said corporation, as shall then have been, or then or thereafter shall be declared or appointed by any bye-law or order lawfully passed by the said corporation, such bye-laws or orders not being contrary to, or inconsistent with any of the provisions of this Act.

Power in certain circumstances to admit additional pensioners on the new fund.

14. Provided always, and be it further enacted and declared, that whenever, and as often as the number of pensioners in the class of mates and sailors upon the said new fund shall fall short of 70, it shall be lawful for any general meeting of said corporation, or the majority of members present at the same, to select and admit, without any valuable consideration, as pensioners upon the said fund, as many poor, old, or infirm persons of the same class or description as will complete the number of pensioners to 70.

The distribution and application of the free revenue to be under the control of the corporation.

15. And be it further enacted, that the distribution of the aforesaid free yearly revenues, in the manner above provided, amongst the said members and others to be relieved thereby, and the application thereof to the other uses and purposes aforesaid, shall, under the provisions hereinafter expressed, at all times remain and be under and subject to the absolute control and direction of the said corporation; and the aforesaid yearly statements of the said free revenue or revenues, when doqueted in manner above directed, shall, each year after the passing of this Act, be laid before a general meeting of the said corporation, to be

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called and held for the special purpose, on the 25th day of March yearly, if a lawful day, and if not, on the day following: And it shall be competent and lawful to each of the said general meetings of the said corporation, to be so called and held, or to the majority of members present at the same, under the provisions hereinafter expressed, to class the different descriptions of annuitants and pensioners upon the said free revenue or revenues respectively, to fix the proportions in which the same shall be distributed amongst them, and to direct the application of the same to the other uses and purposes aforesaid, in such manner as they shall see fit, and to pass and establish such general orders, constitutions, rules, and regulations, relative to the application and distribution of the said free revenue or revenues respectively, and the classification and payment of the annuitants and pensioners, as shall by them be deemed proper and expedient.

The distribution not to be altered in any manner contrary to the standing general orders.

16. Provided always, and be it further enacted, that it shall not be competent or lawful to the said corporation at any of the said yearly general meetings, to be called and holden as aforesaid, or otherwise in any manner of way, to alter the classification of the annuitants and pensioners, or to alter the proportions of the distribution of the said free revenue or revenues respectively, to the different classes of annuitants and pensioners, or to apply the said free revenues in any way which shall be prohibited by, or contrary to, or inconsistent with, any of the existing and general orders, constitutions, rules, and regulations for the time being of the said corporation, relative to the application and distribution of the said free revenue or revenues respectively, unless such general order, constitution, rule, or regulation shall have been previously repealed; nor shall it be lawful for the said corporation at any such general meeting or otherwise, to repeal or alter any of the said general orders, constitutions, rules, or regulations, or to pass and establish any new ones inconsistent therewith, until particular and precise intimation of the general order, rule, or regulation, one or more, proposed to be altered or repealed, or to be passed and established, shall either have been given to a general meeting of the said corporation, or shall have been made by the clerk, by circular notices, to all the members, 14 days at least previous to the general meeting at which such general order, rule, or regulation, one or more, is or are proposed to be repealed, altered, or passed.

General orders not to be repealed or altered, nor new orders passed, without previous intimation.

Power to admit members on payment of fees or entrance monies.

17. And be it further enacted, that the said corporation shall have power and authority, as they are hereby authorised and empowered, at any general meeting, by a majority of votes of the members present, from time to time, and at all times hereafter, at their will and pleasure, to admit, enter, and receive to be a member or members of the said corporation, and into a participation and enjoyment of all the privileges and advantages thereof, all and whatsoever person or persons, being shipmasters and natural subjects of his Majesty, his heirs and successors, they shall see proper: provided always, that such person or persons, so to be admitted and entered, shall, previous to, or upon his or their said admission and entry, pay, or cause to be paid, to the treasurer of the said corporation, or the committee for executing the office of treasurer, or other person authorised for the time to receive the same, as the case may be, for the use and benefit of the said corporation, such sum or sums of money, and such fee or fees as shall be required and payable upon the entrance of members, by the bye-laws of the said corporation at present in observance and force, or which shall be in observance and force for the time being; and shall farther become subject to all such laws, constitutions, orders, regulations, and agreements as the said corporation from time to time, by bye-laws for that purpose made and provided, may or shall hereafter lawfully order and appoint.

Members not to be admitted otherwise than according to immemorial usage.

18. Provided always, and be it further enacted, that it shall not be competent or lawful to the said corporation, in any manner of way, to enter or admit new members according to any other constitutions, rules, principles, or qualifications, or upon any other conditions or footing, or any otherwise in any manner of way, than according to their immemorial usage and practice in times past; and that upon each and every occasion of the augmentation, or increase of the rates of the aforesaid annuities and pensions, there shall be a proportional and corresponding augmentation and increase of the rates of entrance money payable by members upon their admission into the said corporation, and it shall not be competent or lawful to the said corporation, after any increase of the said annuities and pensions, to enter or admit any member or members, or others, excepting at such increased rates of entrance money; and no person or persons otherwise admitted shall be a member or members of the said corporation, or entitled to any of the privileges thereof, but shall be ejected upon the motion of any individual member of the said corporation, to be made at any general meeting.

Administration and distribution of the estates and funds and yearly revenue, and the books and papers, to be entrusted to the masters, under regulations.

19. And be it further enacted, that the management, administration, collection, and distribution of the whole estates, property, funds, means, and effects, heritable and moveable, of every description, at any time belonging to or enjoyed by the said corporation, and the yearly produce, income, or revenue arising from the same, and all the books, accounts, papers, and writings of every kind belonging to the said corporation, shall at all times be committed and entrusted to, and be under the immediate custody and charge of the master, assistant master, and deputy master for the time being, subject to such regulations as any general meeting, or the majority of members present at the same, may from time to time see expedient to pass and establish; provided that no such regulation, moved at any general meeting, shall be either passed or rejected before the next ensuing general meeting; and the said masters respectively, while in office, shall, under the exception hereinafter mentioned, be personally responsible to the said corporation, each for his own intromissions with, and his own due and proper care, custody, management, administration, and application of the said estates, funds, and others, and of the said books and writings; and in particular, that none

none of the said books and writings shall be taken or given out of the Trinity House of Leith, excepting on the special business of the corporation, or in obedience to the warrant, order, or requisition of any competent court of law. *Trinity Corporation of Leith.*

Mode of discharging masters going out of office, or deceasing, of their intromissions and administration.

20. And be it further enacted, that upon each occasion of the said masters, or any of them, going out of office, or on the decease of any of them, the successor or successors in office of such master or masters, and he and they is and are hereby required, with the assistance of the treasurer, to enter into a full examination and investigation of the intromissions of the said master or masters so going out or dying with the estates, property, funds, and others, of the said corporation, and their management and application thereof; and upon receiving a full and fair accounting for, and being satisfied of the fidelity and propriety of the said intromissions with, and management and application of the same, the successor or successors in office of such master or masters as aforesaid, shall be obliged to subscribe a minute of a general meeting of the said corporation (to be duly convened for the purpose), agreeably to the particular form in the Schedule (B.) annexed to this Act; the subscription of which minute shall for ever relieve, exonerate, and discharge the master or masters going out of office, or deceasing as aforesaid, of all responsibility in the premises, and shall render his or their successor or successors in office equally responsible for the intromissions and management so approved of, as for his or their own intromissions and management when in office; and in case such successor or successors shall not be satisfied with and approve of the intromissions and management of his or their predecessor or predecessors in office, it shall be incumbent upon such successor or successors to make a particular report upon the whole case to the said general meeting, to be convened as aforesaid, in order that they may adopt such measures as they may judge best in the circumstances of the case; and such general meeting shall always be convened as soon as possible, and at farthest, within 14 days of the going out of office or decease of the said masters, or any of them.

Funds to be accumulated to be under charge of the masters.

21. And be it further enacted, that the funds to be accumulated in manner before directed shall, during the accumulation of the same, be likewise committed to and under the immediate charge and management of the said master, assistant master, and deputy master for the time being; who, while in office, shall in like manner be respectively personally responsible to the said corporation, each for his own intromissions with, and management of, and for his careful and proper custody and keeping of the same; and upon going out of office, or dying, such master, assistant master, or deputy master, shall be relieved and discharged of such responsibility, which shall devolve upon and be undertaken by his or their successor or successors in office, in manner above directed.

Powers and duty of the masters to vest the accumulated funds on securities.

22. And be it further enacted, that upon each and every occasion of the said accumulating funds arising to the amount of 1,000 *l.* sterling, the said masters for the time being shall be entitled, of their own authority, to employ and invest the same in the name and for the use and behoof of the said corporation, either upon undoubted heritable security in Scotland, or in the national or Government funds of Great Britain; and upon each and every occasion of the said accumulating funds arising to the amount of 2,000 *l.* sterling, the said masters shall be bound and obliged, as soon as possible, and within three months at farthest, to employ and vest the same in name and for behoof of the said corporation, in one or other of the ways above directed.

The masters to find security for their intromissions and administration.

23. And be it further enacted, that the master, assistant master, and deputy master of the said corporation shall, before entering upon their offices, be respectively bound and obliged to find good and sufficient caution and security to the satisfaction of the said corporation, each for his own intromissions with, and due and proper custody, management, administration, and application of the estates, property, funds, and others aforesaid, and of the books, writings, and papers of the said corporation, in such manner and to such extent as the said corporation shall, from time to time, direct by any bye-law or order, but in no case whatever to a less amount than 500 *l.* sterling for the master, and for the assistant and deputy master 100 *l.* each: Provided always, that no member of the said corporation shall, in this or in any case whatever, be admitted or received as cautioner or surety to the corporation, for any master, or any other person whomsoever acting in the execution of this Act.

The masters to have the assistance of a treasurer, or other person discharging that office, and clerk.

24. And be it further enacted, that in the management, administration, collection, distribution, and application of the said estates, funds, and others, and the revenues arising therefrom, and in the keeping of the books and accounts, the said masters may and shall employ and have the services and assistance of the treasurer to the said corporation, or other person or persons discharging that office, for the uplifting, receiving, and recovering, and disbursing and paying out, and in the general daily receipt, administration, and application, and in keeping the accounts of the said free yearly revenue or revenues, as well as in the general management of the said estates, funds, and others themselves, and also of the clerk to the said corporation in the keeping the books and accounts, and conducting the correspondence, and other like matters of the said corporation, subject always to the immediate directions, control, and superintendence of the said masters; and the said masters shall not be personally responsible, excepting each for his own actual intromissions, for any monies of the yearly revenues of the said estates, funds, and others, all of which it shall be the duty of the treasurer or committee, or other person or persons discharging the office of treasurer, to uplift and receive, and dispose of in the course of the due and proper and ordinary management, administration, and application of the said revenues, and of the affairs of the said corporation;

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corporation; but the said masters shall be personally responsible for the capital or stock of the said estates and funds, and others, and all property, monies, and effects composing the same; and the said treasurer, or other person or persons discharging that office, shall be personally responsible, and shall be bound and obliged, before entering upon the same, to find two respectable and responsible persons to the satisfaction of the said corporation, as cautioners and sureties for his or their faithful intromissions with, and management and application of the monies entrusted to him or them, each surety to be bound, conjunctly and severally, for and with him or them, to the extent of 500 *l.* sterling at least, and to such greater extent as the said corporation may from time to time direct and appoint, by any bye-law or bye-laws.

Treasurer not to act as clerk, and *vice versâ.*

25. And be it further enacted, That it shall not be lawful for the said corporation to appoint or continue the person who has been or may be appointed to act as their clerk in the execution of this Act, or the partner of any such clerk, the treasurer for the purposes of this Act, or to appoint the person who may be appointed treasurer, or the partner of any such treasurer, the clerk to the said corporation for the purposes of this Act; and if any person shall act in both the capacities of clerk and treasurer for the purposes of this Act, or if any person being the partner of any such clerk shall act as treasurer, or being the partner of such treasurer shall act as clerk, in the execution of this Act, every person so offending shall, for every such offence, forfeit and pay the sum of 100 *l.* to any person or persons who shall sue for the same, to be recovered before the judge ordinary of the said county, or the court of session, with full expenses of process.

Masters and managers to examine and report upon the accounts quarterly, under a penalty.

26. And be it further enacted, That it shall be the duty of the said masters and managers, and they are hereby required once in every three months, fully and strictly to examine the accounts of the treasurer, or the committee, or other person or persons discharging the office of treasurer; and generally all the accounts of the receipts and disbursements, and affairs of the said corporation, and the vouchers and instructions of such accounts, and to satisfy themselves of the correctness of such accounts, and of the faithful intromissions and management of the treasurer or committee, or other person or persons discharging the said office, and to make quarterly reports upon the same, to the said corporation, under the penalty, in case of failure, of being held personally responsible for any error in the accounts, or defalcation or deficiency in the funds which shall afterwards be found to have occurred or existed during the time in and for which they ought to have examined the said accounts, but failed so to do.

Prohibition against alienating or contracting debt upon the estates, funds, and property of the corporation.

27. And be it further enacted, that it shall, upon no ground or pretext whatever, be competent or lawful to the said corporation to alienate, dispone, assign, transfer, or convey, or contract debt upon, impignorate, impledge, or mortgage, or in any other manner of way alienate, dilapidate, put away, or burden the estates, property, funds, means, and effects, heritable or moveable, of any description, at any time belonging to or enjoyed by the said corporation, or any part or portion of the same, or the produce, incomes, or revenues arising from the same, or any part or portion thereof, or to do any act or deed, whereby the said estates and others, or any part thereof, or the said revenues or any part thereof, may be alienated, evicted, adjudged, or burdened in any manner of way; but the same shall at all times remain and be altogether unalienable and incapable of being impledged or burdened by them: Provided always, that nothing herein contained shall have, or be construed to have, the effect of preventing the said corporation from levying and uplifting, from time to time, as they may see proper, all or any part of the stock or capital of their funds from the securities or other investments in which they may stand or be employed, from time to time, and re-employing the same upon new securities and investments; or have the effect of infringing, limiting, or restraining, in any manner of way, their free, full, and absolute control, management, and administration of the capital or stock of their said estates, property, and funds, as well as of their revenues aforesaid, for the proper use and behoof of the said corporation.

The funds and property not to be liable for the intromissions or actings of the masters in any other capacity.

28. And be it further enacted, that the said estates, property, funds, and revenues of the said corporation, shall in no case, or in any manner of way, or in any respect, be answerable or liable for the intromissions or actings of their master, assistant master, deputy master, or other office-bearers, or any of them, in the management of any other public or private estates, funds, or revenues or affairs, of which he, they, or any of them, may at any time be trustees or managers, or may have any charge or management, by virtue of the offices held by them in the said corporation, or any otherwise, or for their actings or management, in any other public or private capacity which they may happen to hold by virtue or in consequence of their offices in the said corporation, or any otherwise.

The annuities and pensions not to be arrestable.

29. And whereas the annuities or pensions, or other monies payable or paid by the said corporation to their annuitants or pensioners are chiefly of an eleemosynary nature; be it therefore enacted, that such annuities, pensions, or other monies to be at any time payable or paid as aforesaid, shall not be arrestable, poindable, distrainable, or affectable by the creditors of the said annuitants or pensioners, or any other person or persons whomsoever, nor subject to any legal attachment, diligence, or execution whatever, but shall be entirely appropriated to the maintenance, support, and relief of the said annuitants and pensioners; and the using of arrestment, or any other legal diligence, shall be no hindrance or interpellation to the payment of such annuities and pensions; and in case any creditor of such annuitants or pensioners, or any other person whatsoever, shall attempt to pursue

pursue or follow out any arrestment or other diligence, by citing the said corporation, and the said annuitant or pensioner, in any process of furthcoming or other process or action at law, before any court or courts of law in Scotland, relative to, or for the transference, adjudication, or forthcoming of such annuities, pensions, or other monies to him the pursuer, the judge or judges of the said court or courts are hereby expressly authorised and empowered and required *instanter* to dismiss such process or action, and to decern the pursuer or pursuers of the same in payment to the said corporation, and the said annuitant or pensioner of the full expenses or costs to be incurred by them respectively in or in relation to the said process or action, as the same shall be properly chargeable against the said corporation, and the said annuitant or pensioner respectively, subject to no modification or restriction whatever, and of the full dues of extracting the decrees to be so pronounced, and of all expenses of diligence to be incurred in enforcing the said decrees. *Trinity Corporation of Leith.*

Confirmation of the powers of the corporation to license pilots.

30. And be it further enacted, that nothing in this Act contained shall repeal, alter, impair, or do away, or be construed to repeal, alter, impair, or do away, any of the powers and authorities hitherto lawfully enjoyed and exercised by the said corporation, by virtue of immemorial usage, of the royal warrant and charter aforesaid, or in any other way, relative to the licensing, and regulation, and government of pilots, or other matters of pilotage; or any of the fees, dues, penalties, or payments, either annual or otherwise, presently exigible from pilots licensed by the said corporation, or to be hereafter so payable or exigible; or any of the rights, liberties, and privileges enjoyed by the pilots licensed by the said corporation, except in so far as such powers and authorities, fees, dues, penalties, or payments, and rights, liberties, and privileges, are repealed, altered, impaired, or done away by this Act.

Power to recall all licenses already granted or to be granted to pilots.

31. And be it further enacted, that it shall be competent and lawful to the said corporation and their successors, and they are hereby empowered, at any time after the passing of this Act, to recall and annul all licences already granted or to be granted by them, as authorised and empowered in manner aforesaid, to any pilot or pilots, within three calendar months after public intimation to be made of such recall, three several times, at the intervals of a fortnight, in each of the three Edinburgh newspapers, called the "Edinburgh Courant," "Edinburgh Advertiser," and "Caledonian Mercury," or any three of the principal Edinburgh newspapers for the time being; and all such licences so to be recalled shall, from and after the expiration of three calendar months after the first insertion of such public intimation in the newspapers as aforesaid, be, and the same are hereby declared to be void and null, and for ever at an end; and any pilot or pilots already licensed, or to be licensed by the said corporation, who shall not return his or their licence or licences to the said corporation within the said space, or who, upon any pretext whatever, shall afterwards presume or take upon him or them to act, or to ask or receive payment as licensed pilots, shall not only have no claim or title to any fee or remuneration for so acting, or for such employment, but in case of receiving it, shall be liable and be bound and obliged to pay over the same to the said corporation, for the proper use and behoof thereof, and shall further be severally subject to and liable in a penalty of ten pounds sterling, to be levied and applied in manner after provided: Provided always, that notwithstanding such recall of their licences, it shall still be lawful to the said corporation to recover, as accords, all sums, fees, and other payments due to them by all or any of the said pilots.

The powers to license pilots explained and amended.

32. And be it further enacted, that from and after the passing of this Act it shall be lawful to and for the said corporation of the master and assistants of the Trinity House of Leith, and their successors, and full power, warrant, and authority is hereby given and granted to them, and to their successors in all time coming, and they are hereby required, at any general meeting to be held by them, or by any committee of their number to be from time to time appointed by them for the special purpose (which committee they are hereby empowered to appoint), from time to time to examine any or all such person or persons as they or a majority of them shall think fit and proper, and who for the space of seven years or more, shall have been actually engaged, and actively employed as seafaring men, and during that space shall have sailed for three years or longer time in a square-rigged vessel, with regard to their skill, knowledge, and experience, in the navigating, piloting, and conducting his Majesty's ships and vessels of war, and all other ships and vessels of whatever description, sailing and navigating up and down, inwards and outwards, of the Firth of Forth, in and through the seas and firths, and along the coasts and islands of the northern and German oceans, and in and through, and along or upon, the seas, firths, sounds, bays, inlets, and along the coasts of Scotland, and of the Orkney, Shetland, and Lewis Islands; and such examination being so had and made as aforesaid, and the said general meeting, or committee or majority of either being satisfied of the skill, knowledge, and experience of such person or persons as aforesaid, it shall be lawful to and for the said corporation, and they and their successors are hereby empowered, under their common seal, to license and authorise all or any of such persons so examined and found qualified to act in the capacity of pilot or pilots, for all such ships or vessels, either generally over the whole, or within such particular part or parts, or subdivisions of the bounds or limits before mentioned, as shall be expressed in the licence, according as such person or persons, upon his or their examination aforesaid, may or shall be found properly qualified.

Exclusive right and privilege of pilots licensed by the corporation.

33. And be it further enacted, that the pilots already licensed or to be licensed and authorised by the said corporation, in manner aforesaid, shall, with and under the exceptions and reservations hereinafter expressed, have and enjoy the sole and exclusive right and privilege of navigating, piloting, and conducting all merchant and trading ships and vessels

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up and down, along and within the Firth of Forth from a line running directly from St. Abb's Head on the south side or shore to Fifeness on the north side or shore of the said Firth, up to Carron Roads; and the said corporation and their successors shall have and enjoy the sole and exclusive power and authority to license and authorise pilots, and shall possess and enjoy sole and exclusive jurisdiction in all matters of pilotage, within the limits now specified; and no unlicensed person or persons shall, after the appearance and offer of service of any pilot licensed by the said corporation, have right or be entitled to navigate, pilot, or conduct vessels within the limits now expressed, upon any ground or pretext whatever: provided that such licensed pilot shall appear and make offer of his services within an hour after the vessel shall have hoisted and kept constantly flying the usual signal for a pilot, the time to be ascertained by the oath of the master of the vessel; and excepting always cases of danger to any vessel by reason of stress of weather, where, before such licensed pilot has appeared and offered his services it may be necessary to employ any unlicensed person or persons.

Entitled to supersede unlicensed persons in the charge of vessels.

34. And be it further enacted, that it shall be lawful for any pilot already licensed, or to be licensed by the said corporation as aforesaid, and he shall be entitled, provided he appears and makes offer of his services within the time aforesaid, to supersede, in the charge of any ship or vessel within the limits of his licence, any person not licensed as a pilot, or any pilot not licensed within the limits in which such ship or vessel may be for the time; and every master or other person in command or charge of any ship or vessel, within the limits above specified of the jurisdiction of the said corporation in matters of pilotage, who, after such licensed pilot shall have offered to take charge of the ship or vessel, shall allow any unlicensed person, or any licensed pilot acting out of the limits of his licence, either to continue in or to assume the charge of any merchant ship or other vessel as pilot, and every person who shall thereafter either assume or continue in the charge or conduct of any ship or vessel as pilot, without being duly licensed to act within the limits in which such ship or vessel shall actually be for the time, shall respectively forfeit and pay to the said corporation, for every such offence, double the amount of the sum which would have been exigible for the pilotage of such ship or vessel, over and above a penalty or sum not exceeding 5*l.* sterling to be levied and applied in manner hereinafter provided.

No King's ship or vessel to be obliged to employ a pilot.

35. Provided always, and be it further enacted, that nothing herein contained shall oblige the captain or other person in command of any ship or vessel belonging to his Majesty, his heirs and successors, to take a pilot on board within the said limits, unless he shall see proper so to do; nor shall the captain or master of any other ship or vessel be prevented from piloting and conducting his own vessel within the limits aforesaid, if so inclined.

The right of the magistrates and council of Edinburgh to license pilots, and the rights of all others reserved.

36. And provided further, and be it enacted, that nothing contained in this Act shall limit, restrict, abridge, or interfere with the right of the Lord Provost, magistrates, and council of the city of Edinburgh, and their successors in office, of appointing pilots for the navigation of the port, harbour, and roads of Leith, and their pertinents, in the same way and manner as they have hitherto enjoyed and do now enjoy the same; nor shall extend or be construed to extend to the taking away, abridging, or defeating any grants, liberties, or privileges heretofore granted by any Act of Parliament to the pilots licensed by any other body corporate or politic, or other persons within Scotland, empowered by Act of Parliament to license pilots, or the powers and authority of any other such body corporate or politic, or other persons having separate jurisdiction in matters of pilotage within any ports or districts within Scotland, under any Act of Parliament.

The pilots to be under the control of the corporation.

37. And be it further enacted, that from and after the passing of this Act all persons already licensed, or hereafter to be licensed to act as pilots by the said corporation, or their said committee, in manner aforesaid by virtue of this Act, shall be subject to and under the control, regulation, and government of the said corporation and their successors, or of the committee to be appointed by them for the special purposes aforesaid, or of the masters of the said corporation, in such manner as shall already have been or shall from time to time be hereafter directed and approved of by the said corporation, by any bye-law or bye-laws to be hereafter by virtue of this Act from time to time passed by them, relative to the regulation and government of the said pilots, or any other matter of pilotage.

Power to make bye-laws for the government of the pilots, and to fix the fees, &c., payable by them.

38. And for ensuring the good conduct and constant attendance of the pilots already licensed, and to be hereafter licensed, upon their duty, and for enforcing the general purposes of this Act, be it enacted, that the said corporation and their successors, or the majority of members present at any general meeting thereof, shall be and they are hereby authorised and empowered from time to time to make and frame all such bye-laws, rules, orders and regulations as they shall think fit, and from time to time to determine and direct what fees, not exceeding one guinea, shall be paid by the said pilots to the said corporation and their successors, for the use and benefit of the said corporation, for the examination of such pilots, and for the granting, renewing, or extending their licences from time to time; and what annual rates, dues, or other sums, not exceeding two guineas shall be paid by such pilots to the said corporation for continuing and confirming their licences, which fees and rates such pilots shall be obliged to pay to the said corporation or their treasurer for the time being; and to impose such reasonable penalties and forfeitures, not exceeding 5*l.* sterling, upon such pilots for the breach of such bye-laws, rules and orders, when made, or for failure in payment of such fees, rates, or other sums as to them shall seem expedient;

dient; and from time to time to repeal, annul, alter, and amend all or any of the existing bye-laws, and to make such other new bye-laws, rules, orders and regulations as they shall from time to time think proper, provided they be not repugnant to the true intent and meaning of this Act, or to the laws of this realm. *Trinity Corporation of Leith.*

39. Provided always, and be it further enacted, that no bye-laws, rules, or regulations hereafter to be passed by the said corporation, relative to any matter of pilotage, shall have force or effect before they shall have been examined, sanctioned, and approved of by the Lord President of the Court of Session in Scotland, or the Lord Justice Clerk of Scotland, or the Judge of the High Court of Admiralty in Scotland, or his Majesty's Advocate for Scotland for the time being, or either of them, whose approbation shall be signified under hand and seal; but, when so made and confirmed, such bye-laws, rules, orders and regulations shall be observed and put in execution, and shall have the same force, effect, and operation, to all intents and purposes, as if the same had been enacted by this Act. The bye-laws to be sanctioned by the Lord President, &c.

40. And in order that all such proposed bye-laws and others relative to matters of pilotage may be previously submitted to the examination of all parties interested therein, be it enacted, that printed copies of such bye-laws and others shall be transmitted by the said corporation to the Commissioners of Customs in Edinburgh three calendar months before the same shall be submitted to the said Lord President, Lord Justice Clerk, Judge Admiral, and Advocate as aforesaid; and the said Commissioners are hereby required, upon receipt of such printed copies, to cause the same to be hung up in the several custom-houses of Scotland, to be open to the inspection of all persons interested therein, at all seasonable times; and public notice shall be given by the said corporation, in the *Edinburgh Gazette*, of such proposed bye-laws being hung up for inspection as aforesaid. Before being sanctioned, to be hung in all the custom-houses, and notice given in the "Edinburgh Gazette."

41. And be it further enacted, that printed copies of all such bye-laws, rules, orders, and regulations, as shall be so made and confirmed as aforesaid, shall be hung up in some conspicuous place in the several custom-houses of the ports of Scotland, and also at the said Trinity-house of Leith. When sanctioned, to be hung up in the custom-houses, and at the Trinity-house.

42. And be it further enacted, that every pilot already licensed by the said corporation, shall, within two months of his being required by them, and every person who shall hereafter apply to the said corporation, to be examined and licensed to act as a pilot by virtue of this Act, shall, before any licence be granted to him, execute and deliver to the said corporation a bond or other obligation, by himself and two sufficient cautioners or sureties, to the satisfaction of said corporation, binding themselves conjunctly and severally, for his the said pilot's uniform and due observance of, and obedience to all the said bye-laws, rules, orders and regulations existing and in force for the time being, in all matters of pilotage, and for his regular payment of all annual rates, dues, penalties or other sums, exigible for the time being by the said corporation, under a penalty not exceeding 5 *l.* sterling, over and above payment and performance, as the said corporation shall for the time being require, by any existing bye-law already made and passed, or to be passed, by them in that behalf in pursuance of this Act. The pilots to find security for their observance of the bye-laws and payment of their fees.

43. And be it further enacted, that no person already licensed, or to be hereafter examined and licensed as a pilot by the said corporation in manner aforesaid, shall take charge of any vessel, or in any manner act as a pilot, or receive any compensation for acting as a pilot, until his license shall have been noted or registered by the officers of the custom-house of the place at or nearest to which he shall reside (which officers are hereby required to note or register the same without fee or reward); nor without having his licence, at the time of his so acting, in his personal custody, and actually producing the same to the master of any ship or vessel, or other person desirous of employing him as a pilot, under a penalty to the said corporation of a sum not exceeding 3 *l.* for the first offence, and not exceeding 5 *l.* for the second offence, and under the penalty of forfeiture of his licence for any subsequent offence. Pilots not to act until their licenses are noted or registered at the custom-house.

44. And be it further enacted, that whenever and as soon as the said corporation shall have licensed any pilot or pilots, they shall cause his or their appointment as pilots to be published, by fixing up a notice thereof, in writing, at the Trinity-house of Leith, and at the respective custom-houses of the ports within the limits of such pilot's licence, which notice shall specify the extent of the licence or licences of such pilot or pilots; and farther that the said corporation shall, in the month of January yearly, cause to be printed, and sent to each of the custom-houses in Scotland, to be there hung up in some conspicuous place, an accurate list of all the pilots licensed by them, and acting under their authority for the time, specifying the limits of each pilot's licence. Notice of the appointment of each pilot to be fixed up at the Trinity-house and custom-houses.

A printed list of all the pilots to be each year hung up in all the custom-houses.

45. And be it further enacted, that on the death of any pilot already licensed, or to be licensed by the said corporation, his heirs, executors or other person or persons into whose hands his licence shall have come, shall, without undue delay, transmit such licence to the said corporation, under the penalty, for any neglect, delay or refusal, so to transmit the same, of a sum not exceeding 5 *l.* to be paid to the said corporation. The heirs of a deceased pilot to transmit his license to the corporation.

46. And be it further enacted, that if any pilot already licensed, or to be licensed, by the said corporation, or their successors, by virtue of this Act, shall, on any groundless or frivolous pretext, or without good, lawful and sufficient cause to be immediately assigned and shown by him, decline or refuse to take charge of any ship or vessel when required and Penalties on pilots declining to take charge of a vessel, &c.

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when disengaged, or, on being required by the said corporation, or by any captain or commanding officer of his Majesty's ships or vessels, or by the master or other person having the charge of any merchant or other ship or vessel, shall decline to go on board of any ship or vessel, or when required by any commissioned officer of his Majesty's Navy, or by any principal officer of his Majesty's Customs, or by any person or persons interested as principal or agent, for or on behalf of any ship or vessel wanting a pilot, or after he shall have seen the signal for a pilot hoisted as aforesaid, shall decline to go off to, and take charge of any ship or vessel, when it shall be safe so to do, or shall in anywise delay going on board any such ship or vessel, and taking charge thereof, or shall quit the same, or decline the piloting thereof, after he has been engaged, without leave of the captain or commanding officer of any of his Majesty's ships, or of the owner, master, or other person having the chief command or charge of any merchant or other ship or vessel, and before the service shall have been performed for which he was hired; or shall exact, or demand, or bargain for any other or greater payment, charge, or reward for pilotage, than is allowed by the rates legally established by the said corporation, and in observance and force for the time being, or shall, by drunkenness, render himself incapable of conducting any ship or vessel, or shall from negligence, gross ignorance, or intention, run any vessel on shore, or lose, or do any injury to the same, or to the tackle or furniture thereof, or shall lend his licence to any unlicensed person, to enable or assist him to act, or claim to act as a licensed pilot, or to aid or assist any person or persons engaged in any smuggling transaction, such pilot shall, for every such offence, forfeit and pay to the said corporation any sum not exceeding 10 *l.* sterling, and shall farther be liable to be dismissed from being, or suspended from acting as a pilot, at the discretion of the said corporation.

On exacting higher fees than allowed.

And for drunkenness, negligence, or gross ignorance, lending his license.

Penalties on pilots for conducting vessels into danger, or unnecessarily cutting cables, &c.

47. And be it further enacted, that if any such pilot as aforesaid shall wilfully and knowingly conduct, lead, decoy, or betray any ship or vessel into danger, or shall unnecessarily or improperly cut, or cause to be cut, any cable or cables, of or belonging to any ship or vessel, or by wilful misrepresentation of any circumstances upon which the safety of any ship or vessel shall appear materially to depend for the time being, shall obtain, or endeavour to obtain, the charge or conduct of any such ship or vessel; then and in every such case such pilot so offending or aiding in, procuring, abetting, or conniving at the committing of any such offence, shall forfeit and pay to the said corporation, a penalty or sum not exceeding 5 *l.* sterling, to be levied and applied in manner hereinafter provided; and shall further be either dismissed from being, or suspended from acting as a pilot for a limited period, at the discretion of the said corporation.

Penalties on pilots for unnecessarily making use of any boat, anchor, &c., to enhance the charge of pilotage.

48. And be it further enacted, that if any such pilot as aforesaid shall employ or make use of, or cause or require to be employed or made use of, any boat, anchor, cable, hawser, or any other matter or thing, in or for the service, or pretended service, of any ship or vessel, beyond what shall actually and *bonâ fide* be necessary and proper for the use thereof, with intent thereby to enhance or increase the charge or expense of pilotage, whether for his own gain and emolument, or for the gain and emolument of any other person or persons whomsoever, he shall, in every such case, forfeit and pay to the said corporation, a penalty not exceeding 5 *l.* sterling, and shall also be liable to be deprived of his licence, or to be suspended from acting as a pilot for a limited time, at the discretion of the said corporation.

Pilots not to be taken to sea except in case of necessity.

49. And be it further enacted, that no pilot already licensed, or to be licensed, by the said corporation as aforesaid, shall be taken to sea by the captain or commanding officer of any of his Majesty's ships or vessels, or by the master or other person in command or charge of any other ship or vessel, excepting in case of absolute and unavoidable necessity; and in such case, every such pilot so taken to sea by the commanding officer of any of his Majesty's ships or vessels, shall be paid agreeably to the existing regulations of his Majesty's Navy Board for the time; and if so taken to sea by the person in charge of any other ship or vessel, shall receive 10 *s.* 6 *d.* sterling per day until he shall be returned to the port or place where he was taken on board, or shall have been discharged from the ship for a sufficient time to have enabled him to return there.

A pilot suspended or dismissed to be subject to all penalties for acting as a pilot.

50. And be it further enacted, that any person suspended for a limited period, or dismissed from acting as a pilot, by the said corporation, who shall, during the time of his suspension, or after his dismissal, take upon himself the charge, as a pilot, of any ship or vessel, shall be liable to pay, and shall pay to the said corporation, all the penalties and forfeitures to which any person not licensed as a pilot would be liable and subject for so doing, to be levied and applied in manner after provided.

Pilots to pay a sum annually to the corporation.

51. And be it further enacted, that from and after the passing of this Act, each and every pilot already licensed, or to be licensed, by the said corporation as aforesaid, shall on or before the 15th day of December, and in all time to come, pay, or cause to be paid to the said corporation, or to the other person or persons appointed by them to receive the same, the sum of one guinea, or such other annual rate or payment not exceeding two guineas, as shall be made payable by any bye-law to be made and passed by the said corporation, and to be sanctioned and confirmed in manner before provided; and in case such annual payment, exigible for the time being, shall not be duly made by the said pilots respectively, it shall be lawful for the said corporation to suspend the person or persons failing in payment from acting as pilots, until due payment of such annual sums, besides recovering the same in such other lawful manner as they may see proper.

52. And

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52. And be it further enacted, that from and after the passing of this Act, the respective rates, charges, or prices hereinafter enumerated and specified in the Table in the Schedule (C.) to this Act annexed, may and shall be lawfully demanded, exacted, and received by every pilot licensed by the said corporation, for the piloting or conducting of any ship or vessel from place to place, as expressed in the said Table, and that no greater rates or prices, or other reward or emolument, shall, under any pretence whatever, be demanded, exacted, or received by any such pilot.

The rates in Schedule C. and no other to be exigible by the pilots.

53. And be it further enacted, that on the arrival of any ship or vessel at, and as soon as she shall be safely brought to anchor in any port or harbour, or safe road-stead, within the bounds or limits aforesaid, or as soon as such ship or vessel shall quit or leave the said bounds or limits, in the prosecution of her voyage, it shall be lawful for the pilot to demand the pilotage due to him according to the said Table, and to quit the ship forthwith, unless he shall be expressly required by the master, or other person in charge of such vessel, to remain longer on board; in which case he shall be bound to comply, but shall be entitled to 7 *s.* per day for all the time he shall be so detained, over and above his fees of pilotage.

Charges for pilotage, when to be paid.

54. And be it further enacted, that in case of failure in instant payment of the charges for pilotage as above provided, all sums of money which shall become due for pilotage to any pilot licensed by the said corporation, shall and may be recovered from the owners or masters of all ships or vessels not foreign, or from the consignees or agents thereof, or any other person who shall have paid, or made himself liable to pay, any other charge for the ship or vessel in the port of her delivery, and shall and may be recovered in Scotland in such and the like manner as any other charge for the ship or vessel may be recovered according to the laws and daily practice of Scotland, and in England or Ireland according to the laws and practice of those kingdoms.

Charges for pilotage, if not instantly paid, how recoverable, in the case of all vessels not foreign.

55. And be it further enacted, that in the case of foreign ships and vessels the consignees or agents who shall have paid, or engaged to pay, any charge whatever in relation to such ship or vessel, shall be liable in payment of, and obliged to pay all sums due to the pilot or pilots duly licensed by the said corporation, who shall have piloted such ships or vessels for the pilotage of the same, on oath being made by such pilot before any justice of the peace, that the said pilotage has not been paid by the captain or other person having charge of such ship or vessel: Provided always, that payment thereof shall be demanded from such consignee or agent within 10 days after the same has become due; and such consignee or agent is hereby authorised and empowered to retain in his hands, out of any monies which he may have received, or shall receive, for or on account of such foreign ship or vessel, or the owner or owners, or master thereof, so much as shall be sufficient to pay and discharge such pilotage, and any expenses attending the same; and in case such pilotage shall not be paid, either by the master or consignee, or agent of such foreign ship or vessel, the same shall be recoverable by the pilot to whom it is due in Scotland, in such and the like manner as any other charge for or against such ship or vessel may be recovered by the laws and practice of Scotland, and in England or Ireland according to the laws and practice of those kingdoms.

How recoverable in the case of foreign vessels.

56. Provided further, and be it enacted, that no owner or master of any ship or vessel shall be answerable for any loss or damage, and that no owner or owners of any ship or vessel, nor any owner or consignee of goods, shall be prevented from recovering any loss or damage, upon any contract of insurance of the same, or upon any other contract relating to any ship or vessel, or any cargo on board the same, for or by reason, or in respect of any neglect, default, incompetency, incapacity, or misconduct of any pilot taken on board of any such ship or vessel, under or in pursuance of and in conformity to the provisions of this Act.

Incapacity or misconduct of pilots not to void any contracts of insurance, &c.

57. Provided always, and be it further enacted, that no person or persons shall be deprived by this Act, or any of the provisions thereof, of any remedy by civil action against any pilot or pilots, or other person or persons, which he or they might have had, if this Act had not been passed.

All remedy by civil action against the pilots reserved.

58. And be it further enacted, that all the fines, penalties, and forfeitures at present lawfully exigible by the said corporation, or imposed by this Act, or which shall be imposed by any bye-law to be made by the said corporation, and confirmed under authority of this Act, shall and may be levied and recovered, within 12 calendar months after the offence or offences committed, before any sheriff, justice of the peace, magistrate, or other judge ordinary of or for the county, city, town, or other place or bounds within which the offence or offences shall be committed; or if committed by any pilot before any such judge ordinary of the bounds to which such pilot shall belong; or, if committed by any owner or master, or other person having charge of any such ship or vessel, by any such judge ordinary of the bounds within which such owner or master, or other person shall reside, or to which such ship or vessel shall belong; or if committed by any owner, master, or other person having charge of any foreign ship or vessel, before any such judge ordinary of the bounds within which the said owner, master, or other person or vessel, may at any time be found, within the 12 calendar months aforesaid; or the said fines, penalties, and forfeitures may be levied and recovered from the consignee or agent for any such foreign ship or vessel having in his or their hands monies or effects for or on account of such ship or vessel, or of the owner or owners or masters thereof, before the judge ordinary

Fines and penalties how to be recovered.

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of the bounds within which such consignee or agent shall reside: Provided that the same shall have been demanded from such consignee or agent, during such time as he was possessed of such monies or effects.

By petition or complaint to the Judge Ordinary.

59. And be it further enacted, that such fines, penalties, and forfeitures shall be recovered in the form and by virtue of a petition or complaint, to be made and presented to the said sheriff or other judge ordinary aforesaid by the said corporation, or any person having their consent and authority in writing to make and present the same.

Powers and duties of the Judge Ordinary to whom the petition or complaint is presented.

60. And be it further enacted, that the said sheriff, justice of the peace, magistrate, or other judge ordinary aforesaid, to whom such petition or complaint shall be competently presented, as above provided, shall, and he is hereby empowered and required to grant a warrant to bring before him such offender or offenders, at the time and place to be specified in such warrant, and upon his, her, or their confession, or on the evidence of one or more credible witness or witnesses upon oath (which oath such judge ordinary is hereby empowered to administer) in a summary way, to find the offender or offenders complained upon guilty of the offence or offences committed by them respectively, if he or they shall appear so to be, and to adjudge, decern, and ordain him or them to make payment to the said corporation, or person or persons having their written consent and authority as said is, of the fine, penalty, or forfeiture, or fines, penalties, or forfeitures imposed by this Act in respect of the offence or offences committed by him or them respectively, and of all costs of suit, and of the dues of extracting the decree or warrant, or decrees or warrants, to be pronounced and given forth by the said judge ordinary for the payment thereof, and of all reasonable charges attending the recovery of the same.

The person complained upon, failing to attend, to be adjudged guilty of the offence alleged.

61. And be it further enacted, that if any person upon whom a warrant shall have been duly served to attend such sheriff, or other judge ordinary as aforesaid, in any such petition or complaint made against him, shall refuse or fail to attend at the time to be specified in such warrant, such sheriff or other judge ordinary shall nevertheless proceed to the trial of the offence of which complaint is so made; and upon the conviction of the offender by the evidence on oath of one or more credible witness or witnesses in manner before provided, such offender shall be decerned and ordained accordingly to make payment as aforesaid, of the fine, penalty, or forfeiture annexed to such offence; and in case any such person, upon whom a warrant shall have been served as aforesaid, shall escape, or go and reside without the jurisdiction of the judge who issued such warrant, he shall, notwithstanding, still be held and continue subject to the jurisdiction of such judge in all matters relative to the complaint so made against him; and such judge is hereby empowered and required to proceed to judge and determine, and pronounce sentence and decreet in the matter of the said complaint, as if such person complained upon had still remained within his jurisdiction; and the sentences or decrees to be in either of the above cases pronounced and given forth by the said sheriff, or other judge ordinary aforesaid, shall in no respect be deemed or considered to be a decree in absence, but to all intents and purposes shall be deemed and held to be, and shall have all the force and effect of decrees *in foro*, any law or practice to the contrary notwithstanding.

The jurisdiction of the said Judge Ordinary to be privative and exclusive, and his decrees final, conclusive, and not subject to review.

62. And be it further enacted, that it shall not be lawful for, or competent to any person or persons so complained upon, and decerned against by the said sheriff, or other judge ordinary aforesaid, for or in respect of any such offence or offences, to advocate, suspend, or remove the proceedings from before the said sheriff, or other judge ordinary, or to appeal from, or bring his sentence or decree under review of, or to reduce or set aside the same before any other or higher judge, court of law or equity, or of appellant jurisdiction, either in Scotland or elsewhere, upon any ground in law or fact, or pretext whatever, by advocation, suspension, reduction, writ of appeal, or any other mode or form of appeal, or of reviewing or reducing judicial sentences and decrees whatever; but the jurisdiction of the said sheriff, or other judge ordinary, shall be privative and exclusive in the premises, and his sentence or decree final and conclusive betwixt the parties, to all intents and purposes, any law or practice to the contrary notwithstanding.

The Judge Ordinary empowered to grant warrant to cite witnesses and to bring them before him.

63. And be it further enacted, that the said sheriff, or other judge ordinary, shall be, and he is hereby empowered and required, to grant warrant for citing all necessary witnesses in the subject matters of the said petitions or complaints; and if any person, who shall be so summoned as a witness, in any such petition or complaint, shall, after having been paid or tendered a reasonable sum for his or her costs and expenses, without just cause, refuse or neglect, or fail to appear at the time and place appointed in his citation, it shall be lawful for the said sheriff, or other judge ordinary, on proof of such summons having been served, to issue his warrant to bring such person before him.

His warrants how to be enforced beyond his jurisdiction.

64. And be it further enacted, that if any necessary witness, in the subject matters of any such petition or complaint, shall not reside within the jurisdiction of the sheriff, or other judge ordinary before whom the same is presented, it shall be lawful for the said judge, and he is hereby required, notwithstanding, to grant warrant for citing such witness to appear and give evidence in the said complaint; and afterwards, in case of his failing to appear, for bringing the said witness before him; and it shall be lawful for any justice of the peace, or other judge ordinary of the county, city, town, or bounds within which such witness resides, and he is hereby required to interpose his authority to the said warrants, by indorsing the same; and the same, when so indorsed, shall be lawful warrants for citing such witness to appear, and for bringing him before the said judge, before whom the said complaint was made, at the time and place specified in his warrant.

65. And

Trinity Corporation of Leith.

65. And be it further enacted, that every person who, in any examination upon oath before such sheriff or judge aforesaid, shall wilfully give false testimony, or a false account of the matter sworn to by him, shall be guilty of perjury, and liable to all the pains and penalties hereto annexed by the law of Scotland, and subject to be criminally prosecuted for the same in conformity to the laws and practice of Scotland in the like cases.

Witness giving false testimony to be guilty of perjury.

66. And be it further enacted, that if any person residing in Scotland, who shall be duly cited as a witness in manner above provided, shall, after having been paid or tendered a reasonable sum for his or her costs or expenses, refuse or fail to appear, or upon appearing or being brought before the said judge shall refuse to be examined upon oath, or to answer all or any pertinent question or questions relative to the subject matters of the petition or complaint in regard to which he is cited, without assigning just and lawful cause for such refusal, it shall be lawful for the said sheriff or other judge to whom such petition or complaint shall be presented, and he is hereby required to decern against the person so refusing in a penalty not exceeding 10*l.*, and failing payment thereof, to issue a warrant for committing him to the nearest lawful gaol, therein to be imprisoned for any time, at the discretion of the said sheriff or other judge, not exceeding three months; and every justice of the peace or other judge ordinary of the bounds within which such person may be found for the time, is hereby empowered and required to interpose his authority to and enforce the said warrant, by indorsing the same; and the same, when so indorsed, shall be a legal warrant for imprisoning such person in terms thereof.

Persons refusing to give testimony to be imprisoned.

67. And be it further enacted, that no suit or action shall be brought or prosecuted against any person or persons for any offence or offences alleged to be committed by him or them against the provisions of this Act, unless the petition or complaint be presented within 12 calendar months after the commission of the alleged offence; but such actions or suits being commenced within that time, shall and may be prosecuted and followed out to a final judgment, without any limitation of time other than shall be prescribed to such or similar actions or suits by the common law and practice of Scotland.

Petition or complaint must be presented within twelve months of the alleged offence.

68. And be it enacted, that one-third of all fines, penalties, or forfeitures to be actually levied and recovered in pursuance of this Act, in manner above provided, by whomsoever incurred, shall belong and go to the person who shall inform of the offence being committed; who, if required by the said corporation, shall, with their written consent and authority, sue for the penalty so incurred; and the remainder of all such fines, penalties, and forfeitures, shall belong and be paid to the said corporation, and shall by them be applicable and applied to the like uses and purposes as the other funds of the said corporation, after defraying all expenses incurred in recovering or otherwise in relation to the said fines, penalties, or forfeitures.

Fines and penalties how to be applied.

69. And be it further enacted, that this Act shall be deemed and taken to be a public Act, and shall be judicially taken notice of as such by all judges, justices, and others, without being specially pleaded.

Act to be a public Act.

SCHEDULE (A.) to which this Act refers.

STATEMENT of the Gross and Free Revenue of the Trinity House of Leith, for the Year ending

Dr. [Date.] Cr.

	£. s. d.		£. s. d.
To paid mason-work - - - -		By Feu duties and rents received for the year ending on the day of -	
– paid joiner-work - - - -		– Primage or primegilt received for ditto	
– paid smith-work - - - -		– Interest received for money lent on bonds, &c.	
– paid painters'-work - - - -		– Dividends from the national funds -	
– paid glaziers'-work - - - -		– Annual payments received from fellow-members.	
– paid stipend to the minister of North Leith.		– Ditto from mates and sailors - -	
– paid stipend to the second minister of South Leith.		– Annual payments from pilots - -	
– paid the treasurer's salary - -		– Interest on the entrance money of members admitted within the year.	
– paid the clerk's salary - - -		– Rents received for pews in South and North Leith churches.	
– paid the housekeeper's salary - -		– Interest received on money lodged from time to time during the year in the Bank.	
– paid the bookseller and stationer's account.		– Dividend from the Friendly Insurance Office.	
– paid coals and candles, &c. - -			
- paid sundry small incidental charges -			
Balance, being the net free yearly revenue		Gross Revenue - - - -	

Trinity Corporation of Leith.

DOQUET to the yearly Statement of the Revenue, Schedule (A.)

WE, the Master, Assistant Master, Deputy Master, and Managers of the Trinity House of Leith, in the county of Edinburgh, having carefully examined the above statement of account of the gross and free revenue of the said corporation, for the year ending the day of and having compared the same with the vouchers and instructions thereof, and being satisfied of its correctness in all respects, do hereby approve of the same, and declare it to exhibit a true and correct view of the said gross and free revenue for the said year; the amount of the gross revenue being pounds shillings and pence sterling; and of the free revenue pounds shillings and pence sterling.

Trinity House, Leith, (signed) *A. B.* Master, &c.
[Date.]

SCHEDULE (B.) to which this Act refers.

MINUTE OF EXONERATION.

AT a General Meeting of the Trinity House of Leith, in the County of Edinburgh, called for the special purpose, in terms of the Act of Parliament,

PRESENT:

MESSRS. A. B., C. D., and E. F., the present Master, Assistant Master, and Deputy Master, having been appointed successors in office to G. H., I. K., and L. M., the former Masters; they, in terms of the Act, proceeded to examine and investigate their said predecessors' intromissions with, and management and application of the estates, property, funds, and others belonging to the corporation A.: And now reported, that they were satisfied with, and approved of the same in all respects: Upon which report, the meeting, in terms of the Act, exonerated, and hereby exonerate and discharge the said G. H., I. K., and L. M., the late masters, and their heirs, executors, and successors whomsoever, of their said intromissions, management, and application of the estates, funds, and others of the corporation, and of all responsibility in the premises; the said A. B., C. D., and E. F., the present masters, being, in terms of the Act, equally responsible for the said intromissions and management of which they have now approved, as for their own intromissions and management while in office.

A.

(This minute, *mutatis mutandis*, to be adapted to each particular case that may occur, of only one or two of the masters going out of office, or deceasing: In case of the successors not approving of the intromissions and management of their predecessors, the minute, after the letter A., must run thus:)

And now reported, that they were not satisfied with, and could not approve of the same; and laid before the meeting as particular a report as it had been in their power to prepare, of what appeared to them to be objectionable and amiss in the said intromissions and management; whereupon the meeting referred the report laid before them to the present masters and whom they appointed as a committee, forthwith to proceed fully to investigate and examine, with care and attention, the said intromissions and management, with power to them to call in such assistance from professional accountants, and all others, as they may see proper, and to report *quamprimum* to this meeting, which in the meantime adjourned until such future day as may afterwards be fixed by their said committee.

SCHEDULE (C.) to which this Act refers.

TABLE of the RATES OF PILOTAGE for Piloting Ships and Vessels from Leith Roads to Carron Roads, and from Leith Roads to Stromness, Shetland, and the Lewis Islands, and *vice versa*.

From	To	Ships and Vessels from 70 Tons to 100 Tons Measurement.	Ships and Vessels from 120 Tons to 250 Tons Measurement.	Ships and Vessels from 250 Tons to 500 Tons Measurement.
		£. s. d.	£. s. d.	£. s. d.
Leith Roads -	Inverkeithing, or the Hope -	1 1 –	1 4 –	1 6 –
Ditto - -	Carron Roads - - - -	2 2 –	2 5 0	2 8 –
Ditto - -	Island of May - - - -	3 3 –	4 4 –	5 5 –
Ditto - -	Bell Rock - - - -	4 4 –	5 5 –	6 6 –
Ditto - -	Cromarty - - - -	6 16 6	7 17 6	8 18 –
Ditto - -	Stromness and Kirkwall - -	10 10 –	11 11 –	12 12 –
Ditto - -	Lerwick - - - - -	12 – –	13 – –	14 – –
Stromness - -	Mull of Cantyre - - -	12 12 –	13 13 –	13 13 –

Trinity Corporation of Leith.

ANNO QUINTO GEORGII IV. REGIS.

CAP. 39

AN ACT to alter and amend 'An Act for the Regulation of the Corporation of the Masters and Assistants of the Trinity House of Leith.'—[15th April 1824.]

WHEREAS an Act was passed in the first year of the reign of his present Majesty, intituled, "An Act for the Regulation of the Corporation of the Masters and Assistants of the Trinity House of Leith": And whereas it has been found that certain of the provisions of the said recited Act have been prejudicial to the interests of the said incorporation; and it is therefore expedient and necessary, that the said Act be altered and amended: May it therefore please your Majesty that it may be enacted; and be it enacted by the King's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that so much of the said recited Act as provides that all entrance-monies received from entrants should form and compose part of the capital of the funds of the said corporation, and that the interest thereof only should form part of the yearly income or revenue, be, and the same is hereby repealed; and such entrance money to be received after the passing of this Act, shall be and form a part of the yearly income or revenue of the said corporation, and shall be applicable and be applied as and under the name of the fund called by the said recited Act the New Fund, and shall be carried to the credit of the yearly account, to be rendered by the master and assistants and managers of the said corporation for the year, according to the form of the schedule A., annexed to the said recited Act. 1 G. 4. c. 37. Entrance money to form part of yearly income.

2. And be it further enacted, That during the remainder of the period of 15 years from and after the 15th day of March 1821 (being the 15th day of March first happening after the passing of the said recited Act), the said corporation, instead of applying nine-tenth parts only of their free annual income to the ordinary uses and purposes of the said corporation, shall be entitled and authorised to apply nineteen-twentieth parts of such free annual income to such uses and purposes; and instead of one-tenth part of such free annual income being accumulated for the remainder of the said 15 years, as directed by the said Act, one-twentieth part thereof only shall be so accumulated; and the accumulation of such one-twentieth part at the end of the said period, shall go to and be and form part of the capital of the said corporation; and the interest thereof shall thereafter be deemed part of the yearly revenue of the said corporation, and be applicable and be applied as the said new fund described and created by the said recited Act is thereby directed to be applied. Proportion of annual income to be accumulated.

3. And be it further enacted, That for the space of 25 years after the expiration of the remainder of the said 15 years, nineteen-twentieth parts (instead of nine-tenths as by the said Act directed) of the augmented free yearly revenue of the said corporation, shall be applied in the manner and to the purposes in and to which the said new fund is, by the said recited Act directed to be applied; and the remaining one-twentieth part of the free yearly revenue shall be set apart and accumulated as a fund for the farther augmentation of the capital of the said corporation, and shall at the end of the said 25 years, compose a part of the capital accordingly; and the interest to arise therefrom shall thereafter form a part of the yearly income of the said corporation, and be applied in the manner and to the purposes in, and to which the said new fund is by the said recited Act directed to be applied. Farther regulation thereon.

4. And be it further enacted, That all the monies accumulated in virtue of the said recited Act since the said 15th day of March 1821, shall be applicable and be applied, in the first place, towards defraying the expenses of passing this Act, and then towards the usual and ordinary purposes of the said corporation. Disposal of monies accumulated since March 1821.

5. And be it further enacted, That the said recited Act, and all and every the clauses, provisions, conditions, exceptions, powers, authorities, articles, rules, penalties, forfeitures, matters, and things therein contained, shall remain in full force and effect, except in so far as the said Act is varied, altered, or repealed. Preserving the recited Act in force.

6. And be it further enacted, That this Act shall be deemed and taken to be a public Act; and shall be judicially taken notice of as such by all judges, justices and others, without being specially pleaded. Public Act.

Guildry Incorporation of Perth.

GUILDRY INCORPORATION OF PERTH.

Sir, Perth, 3 September 1861.

As instructed by the Committee of management of the Guildry Incorporation of Perth, before whom I laid your communication of 7th August last, I have now to reply to the same.

The Committee presume that the information asked for is in reference to the sums derived by the Guildry Incorporation of Perth from the owners or consignees of ships, at the Harbour of Perth, for the use of planks furnished by the Incorporation, and which from time immemorial has gone under the designation of "Plankage Dues." The sums exacted on account of each ship are trifling in amount, and for many years the average sum realised for the year has not exceeded 15 *l.*, while the Incorporation are often put to several pounds of expense in providing planks, thereby reducing the free sums annually received on account of the plankage dues to trifling amounts considerably under 15 *l.*

The Committee are unable to state the charter or authority under which the Incorporation originally exacted these dues, but from the books of the Incorporation they appear to have been exacted so far back as the beginning of the last century, and it is well-known law that the Incorporation are entitled to make the exaction from "use and wont," now extending to at least 150 years, without any charter or other written authority.

The Incorporation are possessed of a valuable landed property in Perthshire. They also hold house property in the town of Perth to a large extent; and they likewise realise considerable sums in shape of fees from entries of burgesses of Perth, and members of the Incorporation.

Out of the various revenues of which the plankage dues form a small portion, they pay in charities to poor members of the Incorporation and their widows, by weekly pensions, monthly donations, or otherwise, and by the education of the children of poor members of the Incorporation, upwards of 500 *l.* per annum. The number of members and their widows, who are so assisted, averages from 50 to 60, while there are generally from 60 to 70 children, who receive their education from the above source.

While giving this ample assistance to various individuals, the Incorporation do not admit the vested right of any party to participate in their funds. The Committee have always judged of the claims of every applicant, and their decision has hitherto been held as conclusive.

After making the above explanations, with this further statement that the Incorporation declined to join any of the other bodies having vested interests, in opposing the passing of the Harbours Bill, during the last Session of Parliament, the Committee do not require to say that they are unable, in the present state of their management, to make the report now required by you; and they have therefore instructed me respectfully to request the favour of being informed in what manner they are to act, so as to meet what is required. It will be an easy matter for them to provide that all the plankage dues shall be paid to one or two individuals, who are at present receiving aid, along with the others, from the general funds of the Incorporation, so as to exhaust the sums receivable from that source, but they cannot state that these parties have at present, or will then, have any vested right in the dues.

I am, &c.,
Ja. Thomas, Guild Clerk.

The Secretary, Marine Department,
Board of Trade, Whitehall,
London.

(9411.)

Office of Committee of Privy Council for Trade, Marine Department,
Sir, Whitehall, 6 September 1861.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 3d instant, giving particulars concerning the dues levied on ships, and goods carried in ships, by the Guildry Incorporation of Perth.

In reply, I am to acquaint you, for the information of the Committee of Management of the Guildry Incorporation, that under the circumstances stated in your letter, my Lords presume

sume that, after the expiration of the 10 years mentioned in "the Harbours and Passing Tolls, &c. Act, 1861," no part of the plankage dues will be applied to any objects other than shipping purposes, as defined in the Act. If the Guildry Incorporation can give an undertaking to this effect, it seems to my Lords needless to trouble them with further questions. *Guildry Incorporation of Perth.*

I am, &c.
(signed) *T. H. Farrer.*

J. Thomas, Esq., Guild Clerk,
Guildry Incorporation of Perth, Perth.

(9411.)

Sir, Perth, 1 October 1861.

I LAID your letter of the 6th September before a meeting of the Committee of Management of the Guildry Incorporation of Perth, held last night, when I was instructed to communicate to you, that after the expiration of the 10 years mentioned in "the Harbours and Passing Tolls, &c. Act, 1861," no part of the plankage dues leviable by the Incorporation will be applied to any objects other than shipping purposes, as defined in the Act.

In the meantime, I understand from the tenor of your letter, of date 6th September, that the Incorporation is not required to furnish any annual statement.

I am, &c.
(signed) *Ja. Thomas*, Guild Clerk.

To the Secretary,
Marine Department, Board of Trade,
London.

(10,469.)

Office of Committee of Privy Council for Trade, Marine Department,
Sir, Whitehall, 9 October 1861.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 1st instant, stating, on the part of the Guildry Incorporation of Perth, that after the expiration of the 10 years mentioned in the 9th section of "the Harbours and Passing Tolls, &c. Act, 1861," no part of the plankage dues leviable by the Incorporation will be applied to any objects other than shipping purposes, as defined in the Act.

I am to acquaint you that, having regard to the above communication, my Lords will not require any further returns under the above section of the Act to be made by the Incorporation.

I am, &c.
(signed) *James Booth.*

J. Thomas, Esq., Guild Clerk,
Perth.

Fraternity of the Masters and Seamen of Dundee.

FRATERNITY OF THE MASTERS AND SEAMEN OF DUNDEE.

Sir, Trinity House, Dundee, 10 October 1861.

In reference to my letter of the 19th August last, I now send you two prints of the Return to the Board of Trade, under the "Harbours and Passing Tolls, &c. Act, 1861," the principal signed by the present master along with me.

There may possibly be omissions, as it is difficult to get up so much information without some slight mistake; but I have endeavoured to make the return complete.

I have, &c.

T. H. Farrer, Esq., Secretary, Board of Trade, London.

(signed) *Jas. M'Ewen*, Secretary.

RETURN by the Corporation of the "Fraternity of Masters and Seamen in *Dundee*," to the Board of Trade, under Clause ninth of the "Harbours and Passing Tolls, &c., Act, 1861."

I. The first branch of this Return contains a List of all the Pensions paid by the Corporation prior to the 15th day of March 1861, with the Name, Sex and Age, so far as known or can be ascertained, and Amount of Pension paid yearly to the different Classes of Pensioners.

1. Follows the Sums paid yearly to Free Master Members above the Age of 55 Years.

Males.	Age.	Pensions. £.	s.	d.	Males.	Age.	Pensions. £.	s.	d.
1. George Lindsay	74	15	15	–	11. William Bell	62	15	15	–
2. James Lyall	69	15	15	–	12. James Ireland	63	15	15	–
3. David Duff	69	15	15	–	13. James Archibald	60	15	15	–
4. James Gregory	69	15	15	–	14. David Mitchell	65	15	15	–
5. Lanceman Webster	76	15	15	–	15. James Young	59	15	15	–
6. George Banks	68	15	15	–	16. Henry Taylor	59	15	15	–
7. William Lamb	63	15	15	–	17. John Nicholl	61	15	15	–
8. John White	72	15	15	–	18. William Key	58	15	15	–
9. Peter Mackenzie	64	15	15	–	19. James Kilgour	56	15	15	–
10. Robert Mearns	70	15	15	–	20. Thomas White	59	15	15	–

2. Follows the Sums paid yearly to the Widows of Free Master Members.

Females.	Age.	Pensions. £.	s.	d.	Females.	Age.	Pensions. £.	s.	d.
21. Mrs. John Todd	82	11	6	–	36. Mrs. William Nicoll	62	11	6	–
22. „ Thomas Simpson	70	11	6	–	37. „ George Scott	47	11	6	–
23. „ John Young	60	11	6	–	38. „ James Stewart	48	11	6	–
24. „ Robert Lithgow	76	11	6	–	39. „ George Young	51	11	6	–
25. „ William Ferguson	60	11	6	–	40. „ George Deuchars	58	11	6	–
26. „ Alexander Brown	66	11	6	–	41. „ Thomas Banks	56	11	6	–
27. „ Robert Scott	55	11	6	–	42. „ David Barnett	54	11	6	–
28. „ William Bennet	57	11	6	–	43. „ James Caithness	50	11	6	–
29. „ John Keillor	57	11	6	–	44. „ David Webster	50	11	6	–
30. „ James Berry	50	11	6	–	45. „ Peter Kennedy	70	11	6	–
31. „ Thomas Morris	65	11	6	–	46. „ Thomas Milne	46	11	6	–
32. „ John Gellatly	60	11	6	–	47. „ John Kincaid	72	11	6	–
33. „ Peter Lowson	55	11	6	–	48. „ Robert Kidd	65	11	6	–
34. „ James Fyffe	59	11	6	–	49. „ John Bridie	46	11	6	–
35. „ James Ogilvie	77	11	6	–	50. „ James Webster	69	11	6	–

Fraternity of the Masters and Seamen of Dundee.

2. Follows the Sums paid yearly to the Widows of Free Master Members—*continued*.

	Females.	Age.	Pensions. £.	s.	d.		Females.	Age.	Pensions. £.	s.	d.
51.	Mrs. William Henderson	49	11	6	–	62.	Mrs. John Fyffe -	78	11	6	–
52.	„ Alexander S. Boyack.	38	11	6	–	63.	„ James Cables -	51	11	6	–
						64.	„ James Patrick -	43	11	6	–
53.	„ Patrick or Peter Clark.	38	11	6	–	65.	„ James M'Leish -	40	11	6	–
						66.	„ David Soutar -	52	11	6	–
54.	„ David Davidson	60	11	6	–	67.	„ James Kidd -	52	11	6	–
55.	„ George D. Bruce	49	11	6	–	68.	„ Robert Mawer -	65	11	6	–
56.	„ Patrick or Peter Clark (in Australia).	38	11	6	–	69.	„ Thomas M'Gregor	66	11	6	–
						70.	„ Nathaniel Young	83	11	6	–
						71.	„ Alexander Japp -	60	11	6	–
57.	„ William Ireland	56	11	6	–	72.	„ John H. Kircaldy	56	11	6	–
58.	„ James Barron -	76	11	6	–	73.	„ William Lee -	43	11	6	–
59.	„ John Boyack -	56	11	6	–	74.	„ William Patrick	44	11	6	–
60.	„ David Young -	42	11	6	–	75.	„ William Mearns	62	11	6	–
61.	„ Robert Simpson -	71	11	6	–	76.	„ James White -	62	11	6	–

3. Follows the Sums paid yearly to the Children of Free Master Members.

	Age.	Pensions. £.	s.	d.
Male:				
77. Mr. John Calman's son Thomas - - -	48	5	17	–
Females:				
78. Mr. Robert Spink's daughter Margaret - -	50	7	19	6
79. „ William Deuchars' daughter Helen - -	50	5	17	–
80. „ Wm. Nicoll's daughter Margaret - -	55	5	17	–
81. „ George Caithness' daughter Agnes - -	67	5	17	–

4. Follows the Sums paid yearly to Pensioners on the Mate's Class of the Incorporation above the age of 55 Years.

Males.	Age.	Pensions. £.	s.	d.
82. Mr. Robert Scott - - - - - - -	63	8	15	6
83. „ Alexander Laing - - - - - -	59	8	15	6

5. Follows the Sums paid yearly to the Widows of Mates.

	Females.	Age.	Pensions. £.	s.	d.		Females.	Age.	Pensions. £.	s.	d.
84.	Mrs. James Patrick -	72	5	13	–	104.	Mrs. James Kermeth	63	5	13	–
85.	„ William Gibson	62	5	13	–	105.	„ John Ritchie -	56	5	13	–
86.	„ George Morrison	66	5	13	–	106.	„ David Duthie -	66	5	13	–
87.	„ James Leslie -	58	5	13	–	107.	„ Andrew Fleming	50	5	13	–
88.	„ John Shepherd -	61	5	13	–	108.	„ Robert Couper -	57	5	13	–
89.	„ Peter Newcator	63	5	13	–	109.	„ James W. Mudie	60	5	13	–
90.	„ John Rentoul -	52	5	13	–	110.	„ Samuel Smith -	42	5	13	–
91.	„ David M'Nab -	61	5	13	–	111.	„ John Kerr -	49	5	13	–
92.	„ William Duncan	62	5	13	–	112.	„ David Bower -	46	5	13	–
93.	„ John Houston -	59	5	13	–	113.	„ David Rollo -	49	5	13	–
94.	„ Eliza[h] Simpson	56	5	13	–	114.	„ John Crockat -	39	5	13	–
95.	„ Thomas Small -	48	5	13	–	115.	„ Thomas Barclay	43	5	13	–
96.	„ Mark Christopher	72	5	13	–	116.	„ John Foreman -	68	5	13	–
97.	„ George Webster	60	5	13	–	117.	„ Elizabeth Mawer or Cockrill.	42	5	13	–
98.	„ William Clark -	44	5	13	–						
99.	„ John Martin -	60	5	13	–	118.	„ George Cumming	60	5	13	–
100.	„ James Ireland -	48	5	13	–	119.	„ John Edwards -	36	5	13	–
101.	„ David Cameron	53	5	13	–	120.	„ Thomas Miller -	36	5	13	–
102.	„ James Cook -	51	5	13	–	121.	„ James Ireland -	38	5	13	–
103.	„ James Forsyth -	44	5	13	–						

Fraternity of the Masters and Seamen of Dundee.

6. Follows the Sums paid yearly to the Children of Mates.

Females.	Age.	Pensions.
		£. s. d.
122. Margaret Simpson - - - - - -	13	2 12 6
123. Elizabeth Anderson - - - - - -	7	2 12 6

7. Follows the Sums paid in Charity throughout the Year to Free Masters and Children in indigent circumstances.

	Age.	Pensions.
Males:		£. s. d.
124. Arthur Brown - - - - - - -	50	11 17 –
125. William Anderson - - - - - -	54	8 – –
Females:		
126. Matilda Bowman - - - - - -	65	4 – –
127. Jean Coutts - - - - - - -	75	4 – –

GRAND TOTAL - - - £.1,244 10 6

II. THE second branch of this Return contains a List of the FREE MASTER MEMBERS and their Ages so far as known or can be ascertained, and who, along with their Widows, will become entitled to the Pension before set forth, in terms of the Charter and Bye-laws, on their attaining the age of 55 years complete, or are otherwise incapacitated.

Free Masters.	Age.	Free Masters.	Age.	Free Masters.	Age.
1. William Adamson	50	21. David Gillespie -	37	40. John Rodger -	50
2. George Ambrose -	56	22. James Gray -	57	41. James Rattray -	55
3. Peter Anderson -	47	23. John Greig -	47	42. J. S. Robb - -	52
4. James Anderson -	40	24. John Henderson -	45	43. John Spink -	74
5. Arthur Brown -	50	25. Hugh Inglis -	46	44. James D. Sturrock	37
6. Thomas Barron -	65	26. David Jack -	76	45. David Simpson -	34
7. James Cappon -	42	27. John Jack - -	66	46. Robert Tosh -	58
8. Thomas Cappon -	36	28. David Japp -	48	47. George Thoms -	50
9. Thomas Cook -	39	29. George Kidd -	64	48. George Taylor -	43
10. John Cumming -	34	30. Thomas B. Lewis	44	49. W. O. Taylor -	38
11. Leanus W. Duff -	47	31. James Martin -	69	50. George Welch -	47
12. Thomas Ewing -	64	32. John Mitchell -	52	51. Charles Wemyss -	52
13. George Fleming -	55	33. J. W. Melville -	40	52. Alexander Webster	51
14. Thomas Fraser -	38	34. James M'Gregor -	41	53. John F. Walker -	40
15. David Foreman -	41	35. James Norrie -	54	54. George C. White	35
16. Edgar Foreman -	60	36. James Ogilvy -	34	55. Adam Webster -	59
17. Andrew Greig -	68	37. Melville Pryde -	47	56. William Young -	48
18. Alex. O. Greig -	52	38. John Peat - -	51	57. William Anderson	54
19. William Gray -	54	39. David Pryde -	34	58. John Dickson -	61
20. John Gregory -	36				

Fraternity of the Masters and Seamen of Dundee.

III. The third Branch of this Return contains a List of certain Widows of Free Master Members and Mates who are entitled to Pension, and their ages so far as known, or can be ascertained, but who do not demand it—not being in indigent circumstances in terms of the Charter.

	Age.
Free Masters' Widows.	
1. Mrs. Alexander Martin	69
2. Mrs. William Ogilvie Taylor	59
3. Mrs. John Kennedy	54
4. Mrs. William Clark	48
Mate's Widow.	
5. Mrs. Henry Blyth	56

IV. The Fourth Branch of this Return contains a List of Members who have joined the Corporation prior to 15th March 1861, but who are not yet made free, and who are in the course of paying in, in the respective classes of Master, Mate and Seaman, with their age so far as known or can be ascertained, and who along with their Widows will become entitled to the Pension before set forth, applicable to their class, as Master, Mate or Seaman respectively, in terms of the charter and bye-laws, on their attaining the age of 55 years complete, or are otherwise incapacitated.

Mates.	Age.	Mates.	Age.	Mates.	Age.
1. David Smart Archibald.	28	14. William Duncan	40	29. George Kidd, jun.	27
2. Andrew Anderson	38	15. Charles Duncan	39	30. William Kilgour (Seaman only.)	21
3. James Brown	53	16. William Davidson	29	31. Peter L. Low	45
4. Alexander Barclay	47	17. James Ewing	28	32. James Milne	43
5. William Barron	36	18. Thomas W. Fyffe	33	33. Peter Myles	37
6. James Barron	34	19. David Greig	50	34. John Ogilvy	47
7. Fleming Bishop	37	20. James Grant	33	35. George Oswald	34
8. James Mathew Banks.	31	21. Thomas Herald	34	36. William Ovenstone	32
9. William Clark	37	22. Thomas Key	47	37. David Peters	29
10. James Cumming	29	23. David Kydd	50	38. William Small	57
11. John M. Cochrane	32	24. James Kydd	46	39. William Speedy	37
12. David Cumming	32	25. George Keay	48	40. J. D. Webster	50
13. William Coleman	30	26. Thomas Kidd	39	41. George White	37
		27. John Kennedy	30	42. George Crammond	61
		28. John Key	30		

Note.—In making up the foregoing Returns, no notice has been taken of the ages of the widows and children of the free master members, mates and seamen, as their rights depend on their respective husbands and fathers, whose names are given above:—The rights of such widows and children being inchoate.

Geo. Taylor, Master,
Jas. M'Ewen, Secretary.

Trinity House, Dundee,
26 September 1861.

Dear Sir, Trinity House, Dundee, 5th May 1862.

I have the honour to acknowledge receipt of your communication of date 28th ultimo, requesting, on behalf of the Lords of the Committee of Privy Council for Trade, a copy of the rules of this corporation.

I, therefore, now have the honour to send you herewith two copies of each of the translation of the charter and bye-laws. I may here remark, however, that as I left copies of these documents with you when in London in the month of April last year, I did not think it necessary to send you others, same time as I forwarded the returns of pensions.

In reference to Article 23 of the bye-laws, which regulates the annuities payable to pensioners in the year 1826, and subsequent years, I have to state, for the information of their Lordships, that on the 19th December 1854 the pensions were raised; and again, on 18th December 1855 an additional bonus was declared, which has been continued yearly since; thus increasing the annuities from the amount named in said article, to that specified in the returns sent you on 10th October last.

I have, &c.
Jas. M'Ewen, Secretary.

J. H. Farrer, Esq.,
Board of Trade, London.

Fraternity of the Masters and Seamen of Dundee.

The By-Laws of the Fraternity of Masters and Seamen in *Dundee*. Sanctioned by a General Meeting, 21st March 1826.

Articles, &c.

1. The ordinary business of this corporation is transacted by the master and 12 members, appointed annually, by a majority of voices, at the general stated quarterly meeting in December, which 12 members are to serve as a committee or council, with whom the master is to consult and advise with, in the ordinary management of the funds of the corporation; any five of them shall constitute a quorum, with power of adjournment, as they shall see cause; and the master, when elected, shall have full power and authority, with consent of the meeting, to name a deputy to act for him in case of his absence.

2. Temporary vacancies in the committee or in the offices may be filled up at the discretion of the managers, at their meetings duly convened; and these meetings shall be open to any of the master members, who may on all occasions assist by advice, but not vote on debates, unless it be necessary to make up a quorum.

3. General stated quarterly meetings are convened by regular summons; and are held upon the third Tuesday in March, the third Tuesday in June, the third Tuesday in September, and the third Tuesday in December.

4. If any member shall be elected master, and shall refuse to accept thereof, he shall be liable in a penalty of five pounds sterling to the funds of the corporation; but no person shall be subject to this penalty who has served the office of master within the space of six years.

5. The master shall find satisfactory security for his intromissions with the funds of the corporation; and no person shall be continued in the office of master for more than two years at one time.

6. The master, or in his absence his deputy, shall be entitled to preside at all meetings of the corporation, and to exercise therein both a deliberative and a decisive or casting voice amongst the members present.

7. The master, or in his absence his deputy, shall not have a negative upon the calling of a meeting of the society: but, in case of their absence or refusal so to do, it shall and may be lawful for any five or more members of the said corporation, uniting together for that purpose, to call a meeting for any occasional business, upon giving the previous notice of 24 hours to the other members; and such meeting shall have power to choose a president *pro re nata*, and to proceed and determine any business and affairs of the corporation that may be brought before them, in the same manner as if the master or his deputy was present and presided at such meeting.

8. That at every meeting of the said society, when legally called, any five members shall constitute a legal meeting; and every act and thing done and transacted by such meeting shall be equally valid, effectual, and binding upon the society, as if every member thereof was actually present.

9. That it shall not be in the power of the master and members of the said corporation to lay out any more or larger sums of money in charity within the year, than the clear and free yearly produce and income of the estates and securities belonging to the said corporation, and of the current collections, subscriptions and benefactions such year shall have produced; and that the estates and capital sums which compose the funds of the said corporation shall for ever remain entire.

10. That on the second Tuesday of February in every year, an annual account of the estates and funds of the said corporation, and of the receipts and expenditure, shall be made up by the master and laid before the committee; and the said committee shall audit and examine them, and report the same to the general meeting in March for their examination and approbation; and that his book and accounts shall be open at this and all other meetings for the inspection of the other members of the corporation.

11. The sederunt of any meeting of the managers or committee shall not be considered as legal or valid, either in the whole or any of its clauses, abstractedly considered, until it shall have received the sanction of the first general stated quarterly meeting afterwards held.

12. The sederunt-book of the corporation shall not at any time be taken from the house, under any pretence of engrossing or inserting any sederunt or writing therein; and it must be correctly paged, to prevent the introduction of anything therein that may be foreign to the real sense and meaning of what may be sanctioned by meetings duly convoked.

13. A shipmaster

Fraternity of the Masters and Seamen of Dundee.

13. A shipmaster having the actual command of a ship or vessel belonging to the Port of Dundee, applying to be enrolled to pay poor's money as a master, who has not before belonged to any of the classes of the corporation, must pay entry-money as a mate, into which class he is considered to belong until he be admitted a free master member; and no person shall be enrolled upon any of the classes of this corporation whose age exceeds thirty-five years; and he shall not be admitted but by a majority of voices of the members present at one of the general stated meetings of the corporation.

14. If application from a shipmaster to be admitted a free master member of this corporation be made betwixt any of the stated quarterly meetings, the master unto whom such application must then be made shall call a committee meeting of the managers of the corporation, for the purpose of recording said application; which will entitle the shipmaster so applying to be admitted a free master member of this corporation at the first quarterly meeting afterwards held, whether such person be in Britain or abroad.

15. Any master member whose age shall exceed 55 years may, upon application to any of the quarterly meetings, be exempted from paying yearly poor's money, and yet allowed to retain all his rights and claims upon the corporation; but such member shall not be entitled to sit or vote at any of the meetings of the corporation.

16. Any shipmaster making application, in writing, to be admitted a free master member of this corporation must have the actual command of a ship or vessel belonging to the port of Dundee. He must not exceed the age of 40 years; to ascertain which, a regular certificate from the parish-register where he was born, or some document or proof that shall appear satisfactory to the general meeting, must be produced. And, as further qualification for admission, the candidate must produce a certificate of having paid poor's money regularly into the fraternity's collector, as a master, for at least five years; and his family must be resident within the town of Dundee.

17. Shipmasters who are in agreement with the preceding articles and regulations, which necessarily constitute qualifications, may be admitted free master members at any of the general stated quarterly meetings, on paying, in the name of entrance-money, the sum or sums standing against the respective ages in the annexed table; but always deducting therefrom what the candidate may have paid as entrance-money on being admitted a member on the mates' class.

I. Master's Class.

Age.	Entry. £.	s.	d.	Age.	Entry. £.	s.	d.
30	10	–	–	36	19	–	–
31	11	10	–	37	20	10	–
32	13	–	–	38	22	–	–
33	14	10	–	39	23	10	–
34	16	–	–	40	24	–	–
35	17	10	–				

II. Mates' Class.

N. B.—The whole sum paid by persons when admitted on the Seamen's Class must be deducted from the entrance-money stated in this Table on their being admitted members of the Second Class.

Age.	Entry. £.	s.	d.	Age.	Entry. £.	s.	d.
24	2	10	–	30	5	–	–
25	3	–	–	31	5	5	–
26	3	10	–	32	5	10	–
27	4	–	–	33	5	15	–
28	4	10	–	34	6	–	–
29	4	15	–	35	6	5	–

III. Seamen's Class,

Showing the Entrance-Money to be paid when admitted Members of Third Class.

Age.	Entry. £.	s.	d.	Age.	Entry. £.	s.	d.
24	1	10	–	30	2	12	–
25	1	13	–	31	2	16	–
26	1	16	–	32	3	–	–
27	2	–	–	33	3	5	–
28	2	4	–	34	3	10	–
29	2	8	–	35	3	15	–

18. The

Fraternity of the Masters and Seamen of Dundee.

18. The sons and sons-in-law of free master members shall be admitted master members upon payment of half the entrance-money fixed by the regulations, provided they enrol themselves upon one of the classes within the term of one year from the termination of their apprenticeship, and which may be done by any person in their absence, upon producing a certificate of their age; but unless this is complied with they shall forfeit all right, title, and privilege of becoming members on half entrance-money, and shall pay the full sum as non-privileged persons.

19. The daughter of a master member shall forfeit for ever all her privileges if she take for her first husband one who, professionally, is not a seafaring man; nor shall she have the power of conferring the privilege of half entrance-money more than once, unless she be at the time of her second marriage an annuitant.

20. If any member of this corporation shall be in arrear of his annual payments, he shall be liable to pay the following penalties; viz.,

When six months in arrear, to pay double;
When one year in arrear, to pay triple;

and if two years in arrear, he shall forfeit every benefit and privilege which he became entitled to when he was admitted a member, unless that he can assign a sufficient reason for such apparent neglect.

21. Any member in arrear of poor's money, as established to be paid annually by masters, shall not be entitled to sit or vote in any meeting of the corporation until such arrears are paid up.

22. All apprentices who may have served apprenticeships of not less than three years with a free master member, and who shall enrol their name on the Mates' or Seamen's Class, within the term of one year from and after the termination of his or their apprenticeships, shall, upon producing the master's certificate of their good behaviour, be entitled to an abatement of 25 per cent. on the entrance-money when they are admitted master members. This privilege cannot accrue to or bear any reference to masters' sons, or sons-in-law of master members.

23. The annuities agreed upon to be given at present, as hereinafter specified, shall be paid quarterly, at the four general stated meetings, to decayed members declaring themselves to be in indigent circumstances.

	£.	s.	d.		£.	s.	d.
Every Master - - -	14	–	–	Every Mate's Widow -	5	–	–
„ Master's Widow -	10	–	–	„ Seaman - - -	5	–	–
„ Mate - - - -	8	–	–	„ Seaman's Widow -	3	–	–

But these respective payments shall be confined to, and made only to decayed and reduced members of the said corporation, and to the widows of decayed members in indigent circumstances.

24. The orphan children of master members of the corporation, who are or shall be enrolled under this institution, when left in indigent circumstances, will be provided for until they attain the age of fourteen years; at which period they shall cease to be burdensome on the society, unless they be in a state of mental derangement, or naturally incapacitated to provide for themselves on account of bodily defects.

25. The orphan children of master members, while under the age as expressed in the preceding article, shall be allowed as follows,—viz., one child, 6 *l.* per annum; two ditto, 10 *l.* per annum; three ditto, 12 *l.* per annum; and four ditto, 14 *l.* per annum. The orphan children of mates and seamen to have an allowance in proportion to their rates.

26. An inquiry shall be made into the state of health and place of abode of the annuitants; and, if residing in England or Ireland, for men, certificates must be produced annually that they are in life, and for widows, that they are unmarried.

27. Any petition presented either for supply or pension, and once rejected, shall not be received a second time, or taken any notice of, unless it shall be signed by five members,—all of whom shall vouch or answer for the truth of what may be stated therein.

28. In consideration of the manner in which the annuities are at present settled to benefit the annuitants, every master member going to sea, whether he makes one or more voyages during the year, and although he should serve in the capacity of mate or seaman, or remain on shore, if he is healthy both in body and mind, and under fifty-five years of age, shall pay annually—

	£.	s.	d.
Masters - - - - - - - - -	1	1	–
Mates - - - - - - - - -	–	12	–
Seamen - - - - - - - - -	–	9	–

These annual payments are exclusive of the sum or sums to be paid by them for entrance-money, according to their classes.

Fraternity of the Masters and Seamen of Dundee.

At a quarterly meeting of the Fraternity of Masters and Seamen, held in their hall on Tuesday the 15th December, 1829,—it was resolved unanimously to exact the following rates of entry-money, from and after this date, from those becoming members of the incorporation, in place of those rates specified in pages 8 and 9 in the preceding by-laws:

Masters' Class.		Mates' Class.		Seamen's Class.	
Age.	£.	Age.	£. s.	Age.	£. s.
25 - - - -	20	21 - - -	5 —	21 - - -	3 —
26 - - - -	22	22 - - -	5 12	22 - - -	3 6
27 - - - -	24	23 - - -	6 4	23 - - -	3 12
28 - - - -	26	24 - - -	6 16	24 - - -	3 18
29 - - - -	28	25 - - -	7 8	25 - - -	4 4
30 - - - -	30	26 - - -	8 —	26 - - -	4 12
31 - - - -	33	27 - - -	8 12	27 - - -	5 —
32 - - - -	36	28 - - -	9 4	28 - - -	5 8
33 - - - -	39	29 - - -	9 16	29 - - -	5 16
34 - - - -	42	30 - - -	10 8	30 - - -	6 10
35 - - - -	45	31 - - -	11 10	31 - - -	7 5
36 - - - -	48	32 - - -	12 10	32 - - -	8 —
37 - - - -	52	33 - - -	14 —	33 - - -	8 15
38 - - - -	55	34 - - -	15 15	34 - - -	10 —
39 - - - -	59	35 - - -	18 —	35 - - -	11 5

Also, that the annual poor's money be now raised as under,—viz.,

	£.	s.	d.
From each Master - - - - - -	1	5	—
„ Mate - - - - - - -	—	14	6
„ Seaman - - - - - - -	—	10	—

In place of those in the preceding page.

At the stated annual general meeting of the Fraternity of Masters and Seamen in Dundee, held in their hall on Tuesday the 19th December, 1843,—it was unanimously resolved to exact the following rates of entry-money, from and after this date, from those becoming members of the incorporation, in place of those rates specified in pages 8 and 9 of the preceding by-laws, and the rates adopted at the quarterly meeting held on 15th December 1829:

Age.	Master's Class. £. s. d.	Mates' Class. £. s. d.	Seamen's Class. £. s. d.
20		5 10 —	3 5 —
21	21 — —	6 5 —	3 17 —
22	22 15 —	7 — —	4 9 —
23	24 10 —	7 15 —	5 1 —
24	26 5 —	8 15 —	5 16 —
25	28 — —	9 15 —	6 11 —
26	30 — —	10 15 —	7 6 —
27	32 — —	11 15 —	8 1 —
28	34 — —	12 15 —	8 16 —
29	36 — —	13 15 —	9 11 —
30	39 — —	15 5 —	10 11 —
31	42 — —	16 15 —	11 11 —
32	45 — —	18 5 —	12 11 —
33	48 — —	19 15 —	13 11 —
34	51 — —	21 5 —	14 11 —
35	54 10 —	23 2 6	15 16 —
36	58 — —		
37	62 — —		
38	66 10 —		
39	71 10 —		

At the same meeting, the following resolutions were come to, and declared, from and after the same, to be bye-laws of the incorporation, and fundamental rules thereof,—viz.,

"1. That before any party shall hereafter be entered or admitted, or his application sustained, either as a master, mate, or seaman, in this incorporation, he shall, before being admitted to any of the classes, or his application entertained, be obliged to produce a medical report, and also a private friend's report, on the state of his health, in terms of the schedules which the master laid before the meeting, and which were approved of, and copies of which will be got from the master for the time being.

"2. That no person shall hereafter be admitted as a member of this incorporation who cannot obtain satisfactory answers to the several questions put in the said schedules."

Fraternity of the Masters and Seamen of Dundee.

TRANSLATION of the Charter of the FRATERNITY of MASTERS and SEAMEN in *Dundee*.—1774.

CHARTER, &c.

GEORGE, by the Grace of God, of Great Britain, France and Ireland, King, Defender of the Faith, to all good men to whom these our present Letters shall come. Whereas Robert Pattullo, James Patrick, David Myles, James Fairweather, Robert Mawer, Alexander Whyte, David Boyter, John Patrick, John Rollo, James Brown, John Lamb, William Maiden, Edward Lesslie, Robert Lesslie, William Lyel, Andrew Spink, David Scott, George Neilson, Alexander Myles, Alexander Clark, John Guthrie, William Knight, James Key, Thomas Brown, William Stormonth, George Shepherd, David Clark, George Younger, Thomas Young, William Bell, William Logan, William Thornton, William Robertson, and James Kennedy, all members of the society known by the name of "The Fraternity of Masters and Seamen in Dundee," in North Britain, have by their humble petition represented unto us, that the burgh of Dundee is one of the most considerable towns in North Britain, as well in respect of trade as number of inhabitants; that the shipmasters and seamen who have their residence in that burgh, have from time immemorial, been united into a society known by the name of "The Fraternity of Masters and Seamen in Dundee," and by that name have been acknowledged in several Acts of the Privy Council of Scotland, particularly in one dated the Twenty-fourth day of February, One thousand six hundred and eighty-seven, granting warrant to, and allowing the said Society to erect lights and beacons at the entry of River and Firth of Tay, and to levy and exact on account of these lights a duty of Twelve pennies Scots, or One penny sterling of every ton of all the ships or other vessels either going out or coming into the River and Firth of Tay, between Fifeness and the Redhead inclusive, and to levy and exact the double of the said duty from foreigners. That in character of the above-mentioned Society, they have, by contributions among themselves, raised and established a considerable fund for the relief of decayed members of the Society, and of the widows and children of members dying in indigent circumstances; and that in the same character they pay part of the stipend to the ministers of Dundee, and a salary to a public teacher of mathematics there. That notwithstanding these circumstances, it does not appear there ever was any legal constitution of this Society; and the petitioners are advised and do believe that were they and their successors in the management of the said Society invested with corporate powers, the same might be rendered still more extensive and beneficial to the public, and the funds more properly, and with better security employed. The petitioners therefore humbly prayed us to grant unto them our royal charter, incorporating them and their successors in the management of the affairs of the said society into a body corporate and politic by the name of "The Fraternity of Masters and Seamen in Dundee," with a perpetual succession, with power to use a seal, to sue and be sued, to purchase lands, to make bye-laws, and with all other usual and necessary powers. And that we would likewise be graciously pleased by the same Royal Charter to ratify and confirm in favour of the petitioners, the above-mentioned Act of the Privy Council in Scotland, passed in One thousand six hundred and eighty-seven, agreeably to the terms and conditions thereof. We, having taken the said petition into our royal consideration, and being willing to give all proper encouragement to so charitable and useful a foundation: therefore we, in compliance with the said humble request, and by virtue of our prerogative royal, and of our special grace, certain knowledge and mere motion, have granted, constituted, declared and appointed, as we by these presents grant, constitute, declare and appoint, that the said Robert Pattullo, James Patrick, David Myles, James Fairweather, Robert Mawer, Alexander Whyte, David Boyter, John Patrick, John Rollo, James Brown, John Lamb, William Maiden, Edward Lesslie, Robert Lesslie, William Lyel, Andrew Spink, David Scott, George Neilson, Alexander Myles, Alexander Clark, John Guthrie, William Knight, James Key, Thomas Brown, William Stormonth, George Shepherd, David Clark, George Younger, Thomas Young, William Bell, William Logan, William Thornton, William Robertson, and James Kennedy, and such other persons who may be duly admitted members, and shall contribute to the funds of the said society in manner after-mentioned, shall be and be called one corporation and body corporate and politic, by the name and style of "The Fraternity of Masters and Seamen in Dundee;" and that they and their successors shall for ever hereafter have a perpetual succession for the purposes of the better and more effectually managing, directing, ordering and appointing in all matters and things respecting the said society and the funds thereunto belonging. And we, for the purposes aforesaid, do by these presents make, create, constitute and establish the said Robert Pattullo, James Patrick, David Myles, James Fairweather, Robert Mawer, Alexander Whyte, David Boyter, John Patrick, John Rollo, James Brown, John Lamb, William Maiden, Edward Lesslie, Robert Lesslie, William Lyel, Andrew Spink, David Scott, George Neilson, Alexander Myles, Alexander Clark, John Guthrie, William Knight, James Key, Thomas Brown, William Stormonth, George Shepherd, David Clark, George Younger, Thomas Young, William Bell, William Logan, William Thornton, William Robertson and James Kennedy, and such other persons who shall be first duly admitted members, and shall contribute to the funds of the said society in manner after-mentioned, into a corporation and body politic and corporate for ever, by the name and style of "The Fraternity of Masters and Seamen in Dundee," with power to them, or the majority of them, to manage, direct, order and appoint in all matters and things touching and respecting the said society, its government, estates, funds and other business and

Fraternity of the Masters and Seamen of Dundee.

and concerns; and that the said corporation, by the name and style aforesaid, shall and may be able and capable in law, to have, purchase, receive, hold, possess, enjoy and retain in perpetuity or otherwise, lands, tenements or other hereditaments of what kind, quality or nature soever (providing always, that the clear yearly rent of the lands, tenements and hereditaments so to be purchased, or which have already been purchased, to and for the benefit of the said society, shall not exceed the sum of Five hundred pounds sterling, computing the rents as they stood at the time of purchasing the same respectively, and after deduction of all feu-duties, land tax, ministers' stipends, and other public burdens whatsoever). And likewise, to lend money upon heritable or personal securities, and to hold goods and chattels, and to receive and hold donations and legacies for the purposes aforesaid: And also, to sell, impignorate or wadset any of the lands, tenements or other heritable subjects already purchased or acquired for behoof of the said society, or which may at any time hereafter be purchased and acquired by the said corporation, and to give and grant leases or tacks of the said lands, tenements or other heritable subjects, and to grant them in feu in the way of perpetual location for a competent feu duty. And also, in the name and style aforesaid, the said corporation shall and may sue and be sued, plead and be impleaded, defend and be defended, in whatsoever courts and places, and before whatsoever judges, justices or other officers, in all actions, pleas, suits, complaints, accounts, matters and demands whatsoever, in such manner and form as any of our subjects able and capable in the law, or any other body politic or corporate may or can. And also, that the said corporation shall have a common seal for the doing of all manner of business and causes of them and their successors, and that it shall and may be lawful for them and their successors to break, change or new make the same seal from time to time, as to them or the majority of them shall seem expedient, which seal shall be kept by their box-master, who shall attend with it, or cause it to be attended with, at all meetings where it shall be required. And we, for ourself, our heirs and successors, direct, order and appoint, that there shall be held four general meetings of the said corporation in every year upon the third Tuesday in March, the third Tuesday in June, the third Tuesday in September, and the third Tuesday in December; and that the first general meeting of the said society shall be held on the third Tuesday in September in this present year, One thousand seven hundred and seventy-four, in the usual place where the members of the said society have generally held their meetings, and between the hours of twelve at noon and four in the afternoon; and we further grant and declare, that the said David Myles shall be the first box-master, and the said Robert Pattullo, James Patrick, James Fairweather, Robert Mawer, Alexander Whyte, David Boyter, John Patrick, John Rollo, James Brown, John Lamb, William Maiden, Edward Lesslie, Robert Lesslie, William Lyel, Andrew Spink, David Scott, George Neilson, Alexander Myles, Alexander Clark, John Guthrie, William Knight, James Key, Thomas Brown, William Stornmonth, George Shepherd, David Clark, George Younger, Thomas Young, William Bell, William Logan, William Thornton, William Robertson, and James Kennedy, shall be the first members of the said incorporation, and that the box-master and members shall and may have full power and authority at the said general meeting in December to elect for the ensuing year a box-master and other necessary officers, and also to appoint a committee of five of their own number to serve as a council with whom their box-master shall consult and advise in the ordinary management of the funds of the said corporation, and with power of adjournment as they shall see cause. Declaring always, as it is hereby expressly provided and declared, that no one person shall be continued in the office of box-master for more than two years at one time, and that the box-master when elected shall have full power and authority, with consent of the society, to name a depute to act for him in case of his absence: And we grant power and authority to the box-master of the said corporation for the time being, or in his absence to his deputy (at his pleasure, or as often as their affairs may require the same) upon twenty-four hours' notice to the other members residing at the time in Dundee, to summon a meeting of the said society, and that the said box-master, or in his absence his deputy, shall be entitled to preside at all meetings of the said Corporation, and to exercise therein both a deliberative and a decisive or casting voice in every question upon an equality of voices amongst the members present: providing, nevertheless, that the box-master, or in his absence his deputy, shall have no negative upon calling of a meeting of the society; but that in the case of their absence or refusal so to do, it shall and may be lawful for any five or more members of the said corporation uniting together for that purpose, to call a meeting for any occasional business, upon giving the like previous intimation of twenty-four hours to the other members, and that such meeting shall have power to choose a President *pro re nata*, and to proceed and determine any business and affairs of the corporation that may be brought before them, in the same manner as if the box-master or his deputy was present and presided at such meeting: And we direct and appoint that in every meeting of the said society, when legally called, any five members shall constitute a legal meeting, and every act and thing done or transacted by such meeting shall be equally valid and effectual and binding upon the society, as if every member thereof was actually present: And we order, direct and appoint that it shall not be in the power of the box-master and members of the said corporation or their successors to lay out any more or larger sum or sums of money in charity within the year, than what the clear and free yearly produce and income of the estates and securities belonging to the said corporation, and of the current collection, subscriptions and benefactions for such year shall (after every deduction out of the same), have yielded and produced, together with the savings of preceding years, so far as shall appear necessary for the charitable purposes of the society: and that the estates and capital sums which compose the funds of

Fraternity of the Masters and Seamen of Dundee.

the said corporation, shall for ever hereafter remain entire and untouched for the behoof thereof; and that the distribution of the said clear yearly produce and income shall be confined to, and made only amongst decayed and reduced members of the said society and their widows, and to the children and grand-children of decayed members in indigent circumstances, preferably to any others, and in the order of preference above set down, and failing any such, to indigent brothers and sisters of any deceased member of the society, and to their children in the same order. Providing always, that no member of the said corporation who is indebted to the same, shall be entitled to any benefit from the funds of the said society while such debt remains unpaid, and that such distributions shall only be made at the general stated meetings of the said society; and we order and appoint, that thirty days at least before the general meeting in March in every year, an annual account of the estates and funds of the said corporation, and of the receipts and outgoings, shall be made up by the box-master and laid before the committee of five (to be elected by the society in manner foresaid, to serve as his council), and that the said committee shall audit and examine the said account, and report the same to the general meeting in March for their examination and approbation; and that his books and accounts shall be opened at this and at all other meetings for the inspection of the other members of the corporation; and that a book be kept in which all the proceedings of the said society shall be regularly entered, which shall at all times be open to the inspection of any member of the society, and that without any fee or reward to be paid by such member. And we further will and declare, that no person shall have right, or be entitled to become a member of the said society or corporation, unless he be admitted by a majority of voices of the members present, at one of the general stated meetings of the corporation, and until he has paid to the box-master, for the use of the society, one pound one shilling sterling as the fees of his entry, and one shilling to the clerk, and one shilling to the officer of the corporation; and that when any member shall be admitted into the said corporation his name shall be registered in a register-book to be kept for that purpose, and he shall remain and continue a member as long as he shall continue to be rated, and to pay the annual dues of the said society, or such annual dues as shall hereafter be settled and appointed to be taken from the members of the said corporation by any ordinance or bye-law to be made for that purpose; and any member falling in arrear the sum of ten shillings sterling in payment of such annual or ordinary dues, shall thereby forfeit and lose his place in the said society, and not to be restored thereto till he pays up his arrears and be re-elected by a majority of the members assembled at one of their general meetings. And we, for ourself, our heirs and successors, do give and grant to the said box-master and members of the said corporation and their successors, full power and authority, in general meetings assembled from time to time, to constitute, ordain and make such and so many bye-laws, constitutions, orders and ordinances as they or the greater part of them being then and there present shall judge proper and necessary for the better government and direction of the said corporation; and the said by-laws, constitutions, orders and ordinances, or any of them, to alter and annul as the said box-master and members so assembled, or the major part of them then present, shall see requisite: all and singular, which bye-laws, constitutions, orders and ordinances so as aforesaid to be made we will, shall be duly observed and kept; but so always as the same be nowise contrary or repugnant to the laws of the realm and the tenor of this charter, and so as such bye-laws, constitutions, orders and ordinances from time to time to be imposed, and every repeal or alteration thereof, or any of them, be likewise agreed to, established and confirmed by a general meeting of the said box-master and members to be held and kept next after the same shall be respectively made. And, further, we, of our special grace, certain knowledge and mere motion, have of new given, granted and confirmed, and by these presents for ourself, our heirs and successors, of new give, grant and confirm to the said box-master and other members of the society aforesaid, the powers granted to the said society by the aforesaid Act of the Privy Council of Scotland, dated the twenty-fourth day of February one thousand six hundred and eighty-seven, granting warrant to and allowing the said society to erect lights and beacons at the entry of the River or Firth of Tay, and to levy and exact on account of these lights a duty of twelve pennies Scots, or one penny sterling, for every ton of all the ships or other vessels, either coming out or going into the River and Firth of Tay, between Fifeness and the Redhead inclusive, and to levy and exact the double of the said duty from foreigners; and also all lands and estates, sums of money, rights, interests, benefits, securities, advantages, powers, privileges and other matters and things whatsoever, by the said society or by any members thereof, for the use and behoof of the same, which they have heretofore held, received, enjoyed, exercised, been entitled to, made or done, and to have, hold, receive, execute and enjoy all and singular the said premises last mentioned by them and their successors and by the said corporation for ever, and in as ample and beneficial a manner, to all intents and purposes, as the said society, or any member thereof for the use and behoof of the same heretofore held, enjoyed and exercised the same: and we do, for ourself, our heirs and successors, declare, that these our letters patent shall be in and by all things valid and effectual in law according to the true intent and meaning of the same, and shall be taken, construed and adjudged in the most favourable and beneficial manner for the best advantage of the said corporation, notwithstanding any mis-recital, defect, uncertainty or imperfection in these our letters patent. And we, for ourself, our heirs and successors, do covenant, grant and agree to and with the said corporation or body politic and their successors, that we, our heirs and successors shall and will, from time to time and all times hereafter, upon the humble suit and request of the said corporation or body politic and their successors, give and grant unto them all such further and other privileges, authorities, matters and things for rendering

Fraternity of the Masters and Seamen of Dundee.

ndering more effectual this our grant according to the true intent and meaning of these esents, which we or they can or may lawfully grant, as shall be reasonably advised and vised by the counsel learned in the law of the said corporation or body politic for the time ing, and shall be approved of by the Lord Advocate or Solicitor General in Scotland, of , our heirs or successors in our or their behoof. In testimony whereof, &c.

Written to the seal and registered the seventeenth day of September 1774.

(signed) *Alex. Watson*, Dept.

Sealed at Edinburgh, the nineteenth day of September One thousand seven hundred and seventy-four years.

(signed) *Ro. Meikle*, Subt.

COPY of the Lists received by the Board of Tra from the several Charitable Corporations nam in the First Schedule to "The Harbours a Passing Tolls, &c. Act, 1861," of all Pensions be paid by them which have been Granted, or which a vested Interest has been created, before t 15th March 1861.

(*Mr. Milner Gibson.*)

Ordered, by The House of Commons, *to be Printed,*
25 *July* 1862.

[*Price* 1*l. d.*]

Under 18 o

LIGHT DUTIES.

RETURN to an Order of the Honourable The House of Commons, dated 4 April 1862;—*for*,

A RETURN "showing the Total Amount Received for LIGHT DUTIES in the UNITED KINGDOM for the Years 1856, 1857, 1858, 1859, 1860, and 1861, distinguishing those from Over-Sea Ships from those engaged in the Coasting Trade."

	OVER-SEA.			COASTING.			TOTAL.		
	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*
1856 - - -	288,607	11	10	63,883	13	2	352,491	5	–
1857 - - -	254,028	16	11	57,522	8	–	311,551	4	11
1858 - - -	242,223	8	5	55,045	2	11	297,268	11	4
1859 - - -	219,810	14	9	53,759	14	10	273,570	9	7
1860 - - -	228,913	8	1	53,899	5	5	282,812	13	6
1861 - - -	231,399	1	7	49,803	2	–	281,202	3	7

Board of Trade,
28 April 1862.

H. R. Williams,
Accountant.

LIGHT DUTIES.

RETURN showing the Total Amount received for Light Duties in the United Kingdom for the Years 1856, 1857, 1858, 1859, 1860, and 1861; distinguishing those from Over-Sea Ships from those from Ships Engaged in the Coasting Trade.

(*Mr. Joseph Ewart.*)

Ordered, by The House of Commons, *to be Printed,*
30 *April* 1862.

247.

THIRD REPORT

FROM

THE LIVERPOOL COMPASS COMMITTEE

TO

THE BOARD OF TRADE;

1857—1860.

[illegible]
[illegible]

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE EDWARD EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

2123. 1861.

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THIRD REPORT

FROM

THE LIVERPOOL COMPASS COMMITTEE

TO

THE BOARD OF TRADE;

1857—1860.

To the Lords of the Committee of Privy Council for Trade.

The Liverpool Compass Committee have the honour to present the following as their third and final Report on the magnetism of iron ships.

The four years which have passed since the second Report was presented to your Lordships have afforded so many opportunities for acquiring further information, and have added so much to the experience of the Committee on this subject, that they have thought it desirable to briefly review their former communications, and see how far they may now require modification. Having made this retrospection, the Committee feel great satisfaction in reporting that it only remains for them to confirm their previous deductions, and to append the results of their more recent investigations.

The chief points already insisted upon are :—

That the magnetism of iron ships is distributed according to precise and well-determined laws.

That a definite magnetic character is impressed upon every iron ship while on the building slip, and is never afterwards entirely lost.

That a considerable reduction takes place in the magnetism of an iron ship on first changing her position after launching; but afterwards that any permanent change in its direction or amount is a slow and gradual process.

That this original magnetism of an iron ship is constantly subject to small fluctuations from change of position, arising from new magnetic inductions.

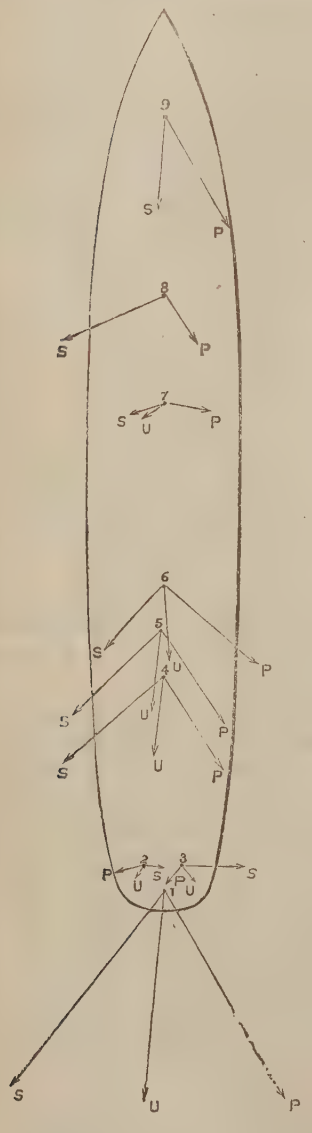
That the compass errors occasioned by the more permanent part of a ship's magnetism may be successfully compensated, and that this compensation equalizes the directive power of the compass needle on the several courses on which a ship may be placed.

These deductions were founded on observations and experiments made in port.

The principal topics which remained for discussion and inquiry were, the effect of heeling on the compasses of iron ships, and the changes which occur on change of magnetic latitude, so far as these could be determined by the collation and discussion of observations made at sea by those captains of iron ships who had co-operated with the Committee. So much difficulty attended the latter, arising from scantiness of material, as well as apparent discrepance in the results, that at the time the Report for 1856 was completed it was considered that the best if not the only mode of completing this part of the subject would be to send the Secretary one or two voyages by steamer to Alexandria, to make the necessary experiments, this being the shortest voyage which would include the requisite magnetic conditions. It is believed, however, though these experiments are still desirable, that enough has now been determined to practically settle all those points which the Liverpool Compass Committee were expected to investigate.

In considering the compass deviations which arise from heeling in iron ships, it was early a subject of remark that the evidence before the Committee generally indicated an attraction of the North end of the compass needle to the high or weather side of the ship, in whatever direction she listed, while the published experiments on this subject, made on board the "Bloodhound" by direction of the Admiralty, showed, on the contrary, a deviation of the needle towards the lee side, and of comparatively small

amount. The reports of merchant captains were in consequence received with some degree of caution, until they eventually became so numerous, and so consistent, as to demand the immediate action of the Committee. It was decided, therefore, that the Committee should defray the heavy expense of heeling and swinging a large iron ship, if the owners could be induced to lend one for the purpose. As the observations made by Captain Leitch on board the S.S. "City of Baltimore," referred to in the preceding Report, showed that this ship would be a desirable one for the purpose, a deputation was instructed to wait on the managing owner, Mr. W. Inman, who at once placed this noble ship at the disposal of the Committee, with the very liberal intimation that he would defray the whole of the attendant expenses. Arrangements were immediately made for swinging this ship, and the results proved most conclusively, not only the correctness of Captain Leitch's observations, but that the errors from heeling were so large as to very seriously affect the safe navigation of the ship when not allowed for. Thus the azimuth compass of this vessel, which is placed about four feet above the deck house, nearly eleven feet above the deck, and about thirty feet before the mizen mast, when the ship's head was placed North, correct magnetic, showed a deviation to the West of 7° 30′; when she was heeled 10° to starboard the deviation was 25° 30′ to the West; and when she was heeled 10° to port the deviation was 15° 30′ to the East; showing a difference of 41°, due to heeling alone, without in any way changing the direction of the ship's head; or an average change of 2° of deviation for each degree of heel! This was about the maximum change for the azimuth compass, for it was found that when the ship's head was East or West by compass, there was practically no change of deviation from heeling, and that the change gradually increased as the ship's head approached North or South by compass.



To obtain as much information as possible from this heeling experiment, the deviations of nine compasses were observed. They were placed in different parts of the ship, as indicated in the annexed diagram. Nos. 2, 3, and 7 were compensated in the manner originally directed by the Astronomer Royal, and did not show very much change of deviation from heeling.

The arrow-pointed lines represented as proceeding from the compass stations 1, 4, 5, 6, 8, 9, in the diagram, indicate the relative strength and direction of the ship's magnetism at these positions. The arrows at 2, 3, 7, show only the resultants of the ship's magnetic force, and that of the magnets placed to compensate it. The letters U,P,S, signify upright, port heel, and starboard heel respectively.

At all these stations except 2 and 3 the North end of the needle was drawn towards the high side of the ship as the ship heeled over. At stations 2 and 3, which are about six feet below the level of station 1, the North end of the needle went towards the low side of the ship.

"CITY OF BALTIMORE," S.S., DIPPING NEEDLE COMPASS.

DIACRAMS TO SHOW APPROXIMATE AMOUNT AND DIRECTION OF SHIP'S HORIZONTAL MAGNETIC FORCE, WITH SHIP'S HEAD ON EACH POINT OF THE COMPASS. (CORRECT MAGNETIC.)

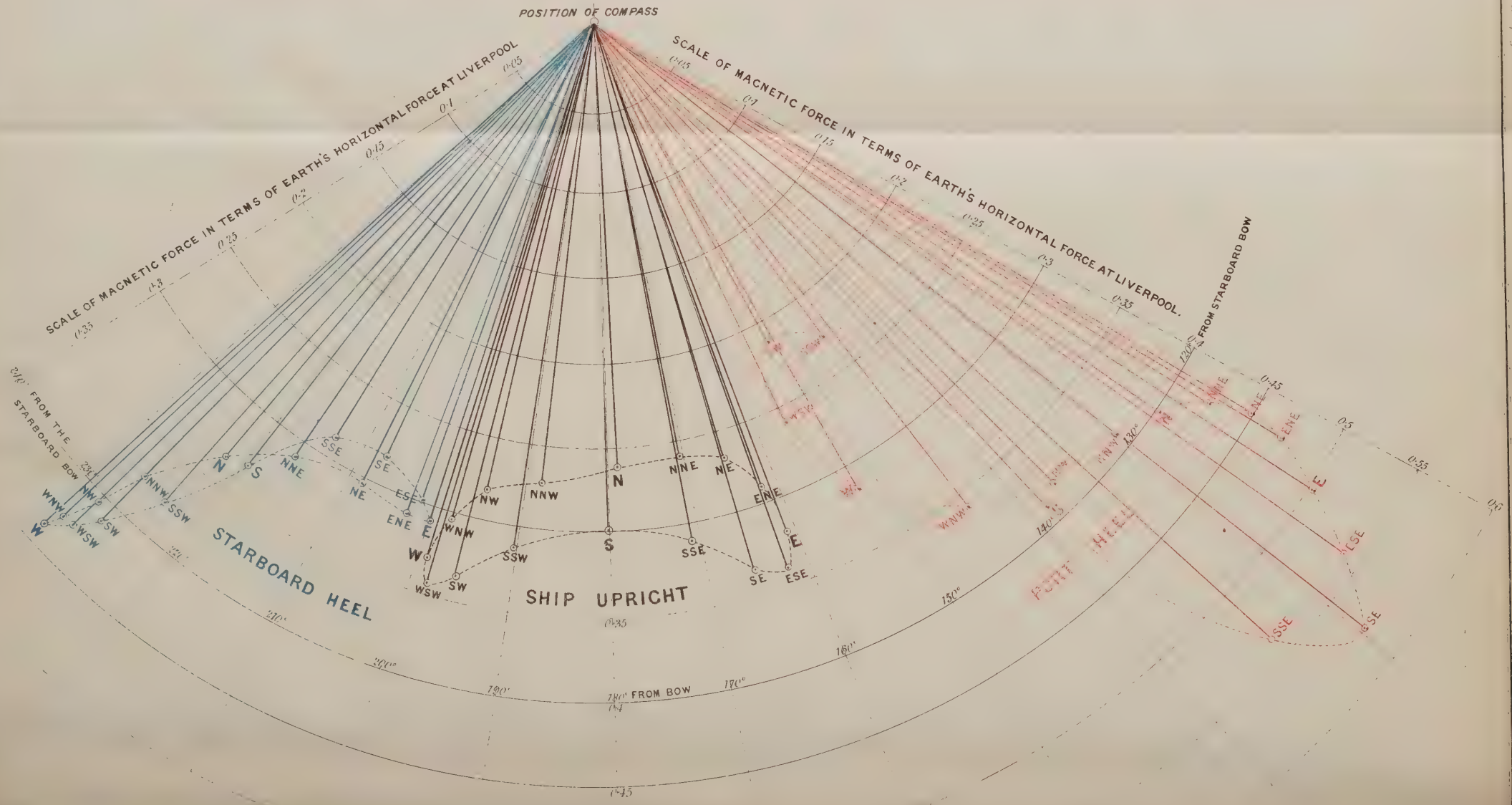


PLATE I. to face page 7.

The following table contains some further particulars of these experiments; the details are given in the Appendix:—

No.	Position of Compass.	Deviations observed with Ship's Head North correct Magnetic.			Change from Heeling 10° to Port to 10° to Starboard.	Average Change for each Degree of Heel.	Mean Amount and Direction of Ship's Horizontal Force in terms of Earth's Horizontal Force.						Ship's Vertical Force as obtained while Ship's Head was N.N.E. in terms of Earth's Horizontal Force at Liverpool.
							Port Heel.		Upright.		Starboard Heel.		
		Port Heel.	Upright.	Starboard Heel.			Force.	Starboard Angle.	Force.	Starboard Angle.	Force.	Starboard Angle.	
	S.S. "City of Baltimore."	° ′	° ′	° ′	° ′	′		° ′		° ′		° ′	
1	Compass placed above the aft side of round-house	+66 40	−24 0	−67 0	133 40	6 41	·9417	149 50	·8394	186 33	·9942	219 26	2·332
2	Port-steering compass, compensated	− 6 0	− 6 0	0 0	6 0	0 18	·1355	256 58	·0452	217 41	·0711	96 35	This observation was made about 3 or 4 feet further forward on the round house than the position of the compass when the ship was swung.
3	Starboard steering compass, compensated	0 0	+ 4 30	+ 9 30	9 30	0 29	·0895	226 58	·0831	130 19	·2254	90 35	
4	Standard compass	+16 15	− 8 30	−28 0	44 15	2 13	·4034	144 9	·3052	191 49	·5278	230 58	1·437
5	Azimuth compass	+15 30	− 7 30	−25 30	41 0	2 3	·4099	144 4	·3348	190 31	·4984	227 6	1·375
6	Dipping needle compass	+22 30	− 0 45	−17 0	39 30	1 59	·4855	125 19	·2938	178 42	·3893	220 11	1·212
	Ditto, ditto, with vertical magnet placed below	+12 30	—	−11 0	23 30	1 11	—	—	—	—	—	—	—
7	Fore compass compensated	+ 8 30	− 2 0	− 7 15	15 45	0 47	·1654	105 36	·0976	244 26	·1308	253 52	·503
8	Mr. Gray's azimuth compass*	?+3 30	+11 30	?−28 0	31 30	1 35	·2420	145 28	·3008	126 28	·4482	246 0	—
9	Compass placed over the fore hatch	+24 0	—	+ 7 0	17 0	0 51	·5103	150 15	—	—	·3690	184 26	—

* This compass was shifted a few feet further aft when the ship was heeled, and there is some doubt as to whether it was the same height from the deck.

An examination of the diagram at page 6, or of the last seven columns in this Table, will immediately show that this steamer has a very strong attraction towards the stern for the north end of the compass needle; that the vertical attraction near the stern is so great as to be nearly equal to the earth's vertical magnetic force at Liverpool, when the ship's head is N.N.E., and that it gradually decreases towards the bow; that the ship's magnetic force is so nearly in the line of the keel that a heel of 10° is sufficient to throw it to port or to starboard. The experiments with the dipping needle compass (see Appendix A.) also show that the amount and direction of the ship's total force change with each change in her position. An attempt has been made to exhibit in the annexed diagram, Plate 1, the changes in the ship's horizontal magnetic force as the ship is swung round, upright, 10° heel to port, and 10° heel to starboard. The positions of the ship's head are indicated by the usual abbreviations.

The results of these experiments were thought so very remarkable that the deputy chairman of this Committee, who was then having a large iron ship built in Liverpool with her head towards the East, determined that this vessel, the "Aphrodita," should also be heeled and swung before she went to sea. A short time afterwards the owners of another large ship, the "Simla," then building on the opposite bank of the Mersey, with her head towards the West, consented to have her heeled for similar experiments.

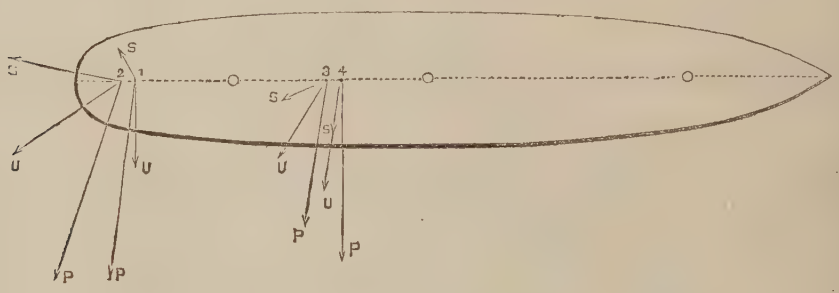
Both these ships, like the "City of Baltimore," showed very large deviations from heeling, while the general direction of their magnetism corresponded with the opposite directions in which they were built; the chief attraction of the compass needle in the "Aphrodite" being towards the starboard side, and in the "Simla" towards the port side. But both ships corresponded with the "City of Baltimore" in attracting the north end of the compass needle to the high side when they were heeled over.

The following Table exhibits the principal facts, and is arranged to correspond with the Table already given for the "City of Baltimore," further discussion and detail being reserved for the Appendix:—

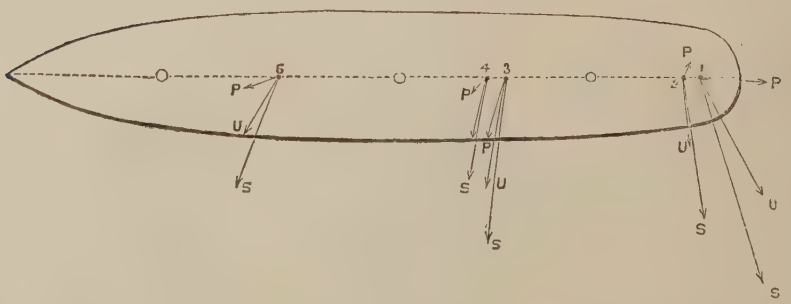
No.	Position of the Compass.	Deviations observed with Ship's Head North correct Magnetic.			Change by Heeling Ship from 10° to Port to 10° to Starboard.	Average Change in Deviation from each Degree of Heel.	Mean Amount and Direction of Ship's Horizontal Force in terms of the Earth's Horizontal Force at Liverpool.					
							Port Heel.		Upright.		Starboard Heel.	
		Port Heel.	Upright.	Starboard Heel.			Force.	Starboard Angle.	Force.	Starboard Angle.	Force.	Starboard Angle.
	"Aphrodita."	° ′	° ′	° ′	° ′	° ′		° ′		° ′		° ′
1	Compass under companion	+36 40	+17 30	− 3 40	40 20	2 1	·7871	107 45	·3489	102 30	·1348	240 58
2	Compass near companion (In the ordinary position for the steering compass).	+51 40	+27 20	− 5 15	56 55	2 51	·8458	115 59	·5763	148 42	·4876	191 51
3	Admiralty standard compass	+29 15	+18 0	+ 5 20	23 55	1 12	·6030	103 37	·3690	124 18	·1757	158 9
4	Dipping needle compass	+32 0	+21 30	+ 9 0	23 0	1 9	·6913	94 35	·4394	104 9	·2016	102 55
	"Simla."											
1	Steering compass	+ 2 45	−22 0	−38 30	41 15	2 4	·2346	186 59	·5331	245 26	·8383	254 20
2	Compass over companion	+ 3 0	−12 30	−30 0	33 0	1 39	·0416	102 6	·2910	267 15	·5748	267 49
3	Dipping-needle compass	− 8 30	−16 10	−24 30	16 0	0 48	·2724	283 54	·4597	278 59	·6416	276 50
4	Standard compass	− 2 45	−10 20	−17 20	14 35	0 44	·0730	315 48	·2594	280 0	·4356	279 6
5	Forward compass	− 2 0	− 9 0	−16 0	14 0	0 42	·1078	345 56	·2639	295 45	·4381	287 20

The relative amount and direction of the magnetic force of each ship at the stations of the several compasses will perhaps be best exhibited by the following diagrams —

"Aphrodita," built Head East.



"Simla," built Head West.



Diagrams to show amount and direction of ship's magnetic force with ship upright, and with 10° heel to port and to starboard.

P. Port. U. Upright. S. Starboard.

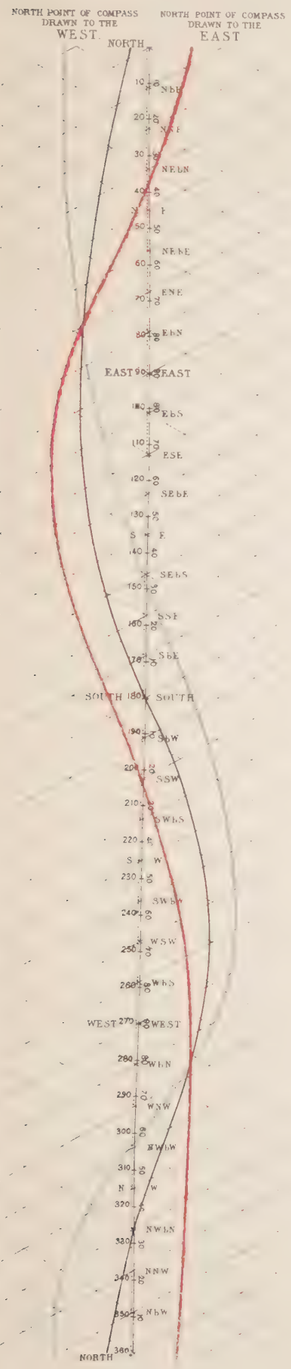
Had the heeling experiments by the Compass Committee closed with these made upon the "Aphrodite," "Simla," and "City of Baltimore," there would undoubtedly have appeared some incongruity between them and the Admiralty experiments upon the "Bloodhound" and the "Recruit." For though it would be easy for one conversant with the magnetism of iron ships to indicate what distribution of a ship's magnetic force would to them account for the observed phenomena, it is felt that the majority of the commanders of iron ships could not be expected to possess this information, and that they may be excused for holding the opinion now prevalent among them that there is something wayward and uncertain, not to say marvellous, in the deviations of the compass which arise from heeling. Fortunately, a fourth vessel of the same large class as the

face page 9.

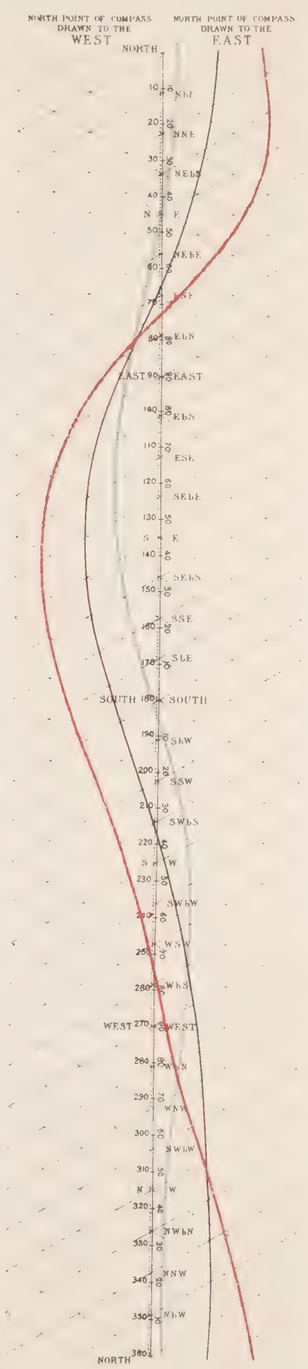
DIAGRAMS

SHOWING THE EFFECT PRODUCED BY HEELING ON THE DEVIATIONS OF THE STANDARD COMPASSES OF IRON SHIPS.

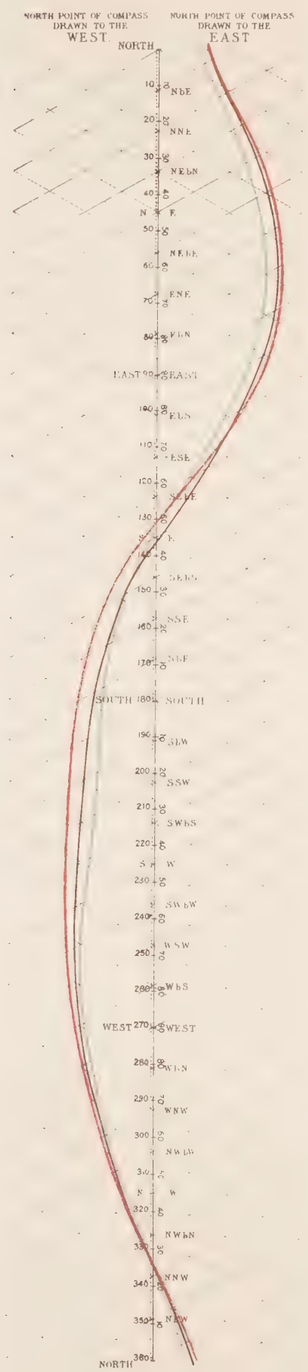
HEAD W. OF N.
when building
CITY OF BALTIMORE.



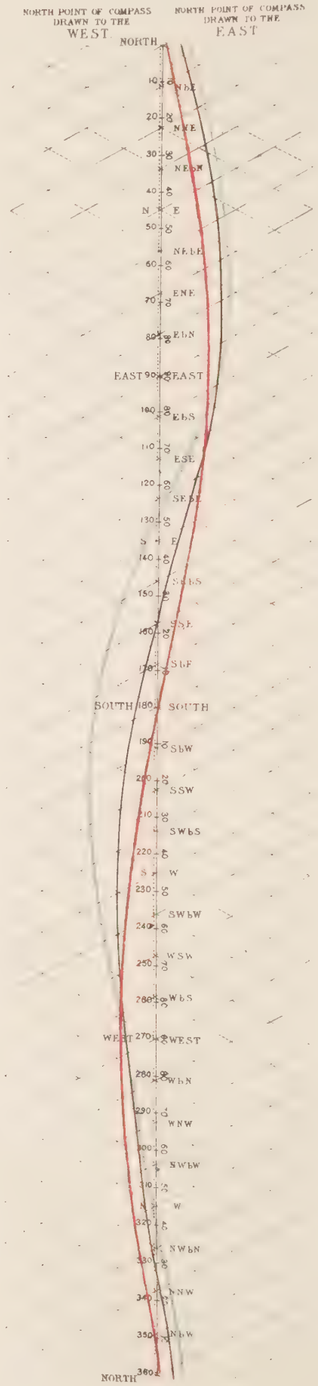
HEAD EAST
when building
APHRODITA.



HEAD ABOUT E. 30° S.
when building
SLIEVE DONARD.

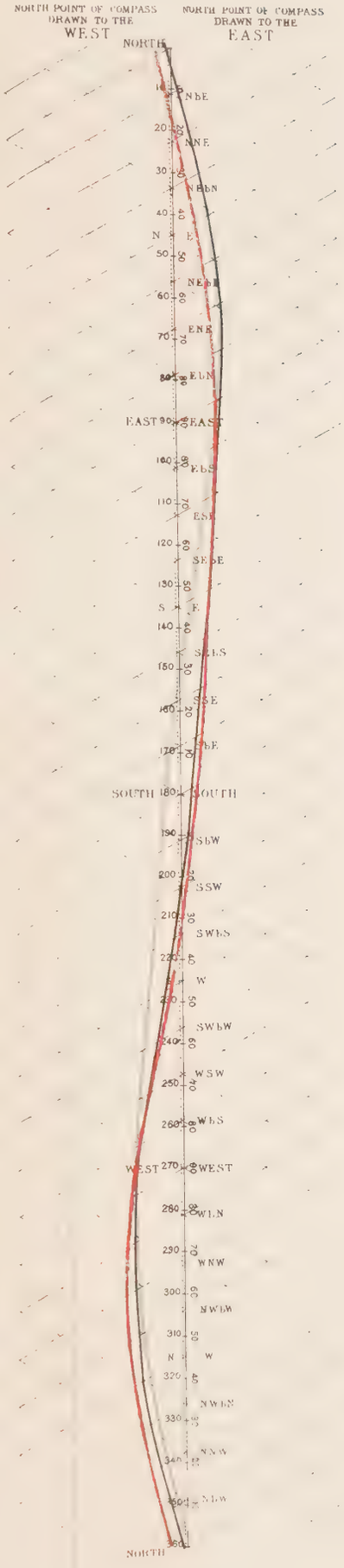


HEAD EAST OF SOUTH
when building
RECRUIT.

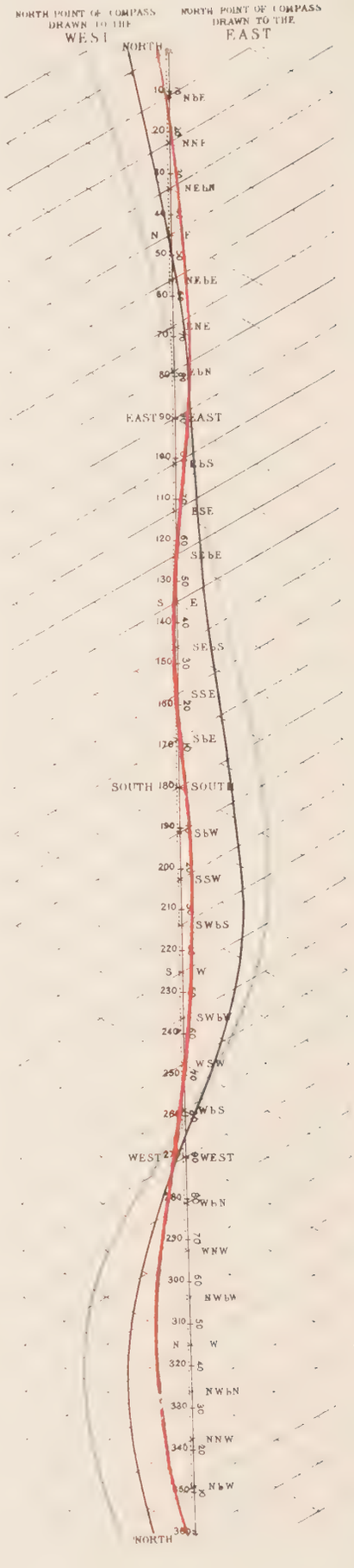


RED CURVES SHOW DEVIATIONS WITH SHIP HEELED TO PORT.
BLACK CURVES SHOW DEVIATIONS WITH SHIP UPRIGHT.
BLUE CURVES SHOW DEVIATIONS WITH SHIP HEELED TO STARBOARD.

HEAD W. OF SOUTH
when building
BLOODHOUND.



HEAD WEST
when building
SIMLA.



Day & Son, Lith.rs to the Queen.

"Simla" and "Aphrodita" was afterwards heeled, at the request of the Secretary, and proved as it were a connecting link between the two sets of experiments, the results obtained in this case demonstrating practically what had previously been suggested by theory. A few days before this ship, the "Slieve Donard," was swung, some preliminary experiments were made with the dipping needle and vibration compass, to ascertain suitable positions for the compasses. These indicated so little vertical magnetic force in the after-part of the vessel, compared with those made on board the other ships, that it was at once suspected that the "Slieve Donard" would show very small error from heeling, and that she could not have been built head nearly East, as had been supposed, from the known position of the building yard. On going to the yard it was found that owing to the great length of this ship the ways on which she was built had been placed obliquely, so that the direction of her head while building was nearly three points south of East! The smallness of the observed dip was thus satisfactorily accounted for, and the inference which had already been drawn in respect to the deviations to be expected from heeling this ship was proportionately strengthened.

The following Table, showing the principal results obtained on board the "Slieve Donard," is arranged so as to allow comparison with the preceding Tables, further particulars being reserved for the Appendix:—

No.	Position of the Compass.	Deviations observed with Ship's Head North correct Magnetic.			Change by Heeling Ship from 10° to Port to 10° to Starboard.	Average Change in Deviation from each Degree of Heel.	Mean Amount and Direction of Ship's Horizontal Force in terms of the Earth's Horizontal Force at Liverpool.					
							Port Heel.		Upright.		Starboard Heel.	
		Port Heel.	Upright.	Starboard Heel.			Force.	Starboard Angle.	Force.	Starboard Angle.	Force.	Starboard Angle.
	"Slieve Donard."	° ′	° ′	° ′	° ′	° ′		° ′		° ′		° ′
1	Aftermost steering compass, compensated	+ 7 30	+ 2 40	− 0 30	8 0	0 24	·0940	72 20	·0456	65 0	·0450	56 0
2	2d. steering compass, compensated	− 8 10	− 7 0	− 5 45	2 25	0 7	·1133	267 50	·0760	253 30	·0475	265 20
3	Skylight compass, compensated	− 3 30	− 0 30	+ 3 0	6 30	0 20	·0662	66 30	·0220	140 30	·0740	78 0
4	Mast compass	+ 4 0	+ 2 15	− 1 25	5 25	0 16	·1922	2 10	·2015	1 30	·1960	0 55
5	Port skylight compass	+ 7 20	+ 6 0	+ 4 0	3 20	0 10	·4150	17 45	·3960	19 15	·3780	14 40
	Ditto, ship's head South	− 3 45	− 5 45	− 5 45	2 0	0 6	—	—	—	—	—	—
6	Starboard skylight compass	+15 20	+12 10	+13 20	2 0	0 6	·5160	45 30	·4730	39 0	·4830	44 30
7	Compass placed above after-hatch	+20 0	—	+21 0	1 0	0 3	—	—	·4630	35 15	—	—
8	Dipping needle compass	+11 20	+10 50	+10 30	0 50	0 3	·5790	39 40	·5280	37 45	·4900	36 50
	Ditto, ship's head South	−26 30	−20 45	−16 25	10 5	0 30	—	—	—	—	—	—

To exhibit at one view and in the most unexceptionable manner the general effect of heeling on the compasses of iron ships the annexed diagram has been prepared. Plate II. shows graphically the deviations of the standard compasses of the six ships which have been experimented upon. The standard compasses are chosen because they were placed in carefully selected positions, free from the disturbance of particular masses of iron, and at least four feet above the deck. In the cases of the "Aphrodita," "Simla," and "City of Baltimore," from eleven to twelve feet above the deck. In each example the deviation curve, with ship upright, is shown in black, with ship heeling to port in red, and with ship heeling to starboard in blue ink.*

An examination of the preceding diagrams, and the illustrations in Reports 1 and 2, showing the distribution of the magnetism of iron ships, as influenced by position while building (*see* specially those of the "Bœotia," built with head southerly, and "City of Washington," built with head northerly, pages 42 and 43 of Report II.), will readily show that there is a general consistency in the results. Thus, in ships built with their head more or less to the North, there is a strong magnetic attraction of the opposite name below the compasses in all the after part of the ship, the effect of which is to increase the deviations observed with the ship upright as the ship is heeled in one direction, and to decrease them when the ship is heeled in the opposite direction, the result being equivalent to an attraction of the north end of the compass needle to the high side of the ship. In ships built with head more or less to the South, as there will be the contrary magnetic attraction below the compass, the reverse effect from heeling is exhibited. It remains to be explained why the deviations from heeling in ships built head to South are so much smaller than in ships built head to North in these northern latitudes.

* While this Report was passing through the press, two other large iron ships have been swung with 10° heel to port and to starboard. The results will be given in the Appendix.

The principal, but not the only cause of this, is believed to be the induced vertical magnetism of the deck beams, and other similarly placed pieces of iron, as the ship heels over. In this latitude the upper end of the beams instantly acquire southern polarity, and in combination with the natural South polarity of the after part of the vessels built head to North, jointly produce the deviation of the needle to the high side; but in ships built head to South there is only the difference instead of the sum of these two forces. This being the case, it is apparent that there may be some ships in which these two forces will cancel each other in this latitude, and that these ships must necessarily be built in North latitude, with their head somewhere between South and West and South and East. The "Slieve Donard" indicates more closely these limits for ships of her class built in this country, and places them near S.W. and S.W. by W., or S.E. and S.E. by E. Further, as these deviations from heeling, like ordinary deviations, are partly due to the more permanent and partly to the induced magnetism of the ship, it is evident they must change with change of magnetic latitude, and that in high South latitudes the reverse phenomena must be expected to obtain; namely, that ships built here, with head more or less to the North, will have comparatively small deviations from heeling in high South latitudes, and that ships built head to South will have larger deviations, and of the contrary name, to those exhibited in North latitude.

The *general* effects of heeling on the deviation of the compass in iron ships may be stated as follows:

1. The maximum deviations from heeling will occur in iron ships when they are upon or near northerly or southerly compass courses. They will decrease as the ship approaches easterly or westerly compass courses. There will practically be no deviation from heeling when ship's head by compass is East or West.

2. In ships built in this country, with their head towards any point between W.S.W. and E.S.E. by way of North, the north end of the compass needle deviates towards the high or weather side of the ship, and, other things being the same, to the greatest extent in ships built with head at or near North. In these ships the deviation from heeling will increase as the ship attains greater North magnetic latitude, and will decrease as the ships go towards South magnetic latitude. In some cases the deviation from heeling in these ships may disappear in high South magnetic latitude, or even change its name.

3. In ships built with head between S.W. and S.E. by way of South the deviation from heeling will usually be small in North magnetic latitude, and the north end of the needle will generally be attracted towards the low side of the ship. The deviation from heeling in these ships will increase as they approach South magnetic latitude.

4. In ships built in positions intermediate to those named in sections 2 and 3 the deviations will usually be small in ordinary North latitudes, and are not likely to be very large in ordinary South latitudes.

5. To test whether a ship's compasses will be affected by heeling or not, she should be listed over while her head is at or near North or South, both to port and to starboard, as in some cases there may be a moderately large deviation from heeling as the ship inclines in one direction, and very little, or even none, when the ship is heeled the opposite way. The trial should be made with head North if the ship was built with head northerly, and with head South if built with head southerly. This precaution will be most necessary when the compass is near the stern. The deviation from heeling on the intermediate points may be approximately found by multiplying the maximum deviation from heeling into the sine of the angular distance of the point in question from East or West.

6. An approximate idea of the extent to which a ship's compasses will be affected by heeling may be obtained by dipping needle and vibration experiments, without actually heeling or swinging a ship, by persons who have acquired previously some experience in these experiments and in the magnetism of iron ships; but until further data on this subject are accumulated the most satisfactory course is to swing every new iron ship with a list to port and to starboard, as well as upon an even beam.

These remarks are intended to apply to uncompensated standard compasses, placed in the ordinary positions, and have relation only to the extra deviation which is caused by heeling. Other results are also possible, as, for example, in ships without iron deck beams. It is also possible for the deviation from heeling to be in the same direction, whether a ship inclines to port or to starboard; but in any such case it is believed that the deviation from heeling in one direction, if not in both, must necessarily be very small in amount; so small that it could not practically affect the navigation of an iron ship.

The compasses in these experiments, which were compensated in the usual manner with magnets placed below the level of the card, have shown comparatively small errors from heeling. This effect was anticipated by the Astronomer Royal in his paper published in the Philosophical Transactions for 1839.

Further particulars of the heeling experiments by this Committee are reserved for the Appendix, where will also be given the results of all the known experiments of this kind. The deviations from heeling observed on board the "Sharpshooter" were furnished by Mr. Evans, of the Admiralty Compass Department. This vessel is reported to have had no iron deck beams; but it will be seen that her quadrantal deviation is comparatively large; she affords, therefore, an apt illustration of the magnetism of the floors and bottom plates of a ship being conducted up the sides. This effect is also very apparent in experiments made on board the "Accrington," to which reference will presently be made.

Before leaving this part of the subject the Committee request attention to some of the extreme cases of deviation from heeling, as illustrating how rapidly the deviations increase in those quadrants in which the directive power of the compass needle is small.

Interesting as the various heeling experiments have proved to the Committee, and conclusive as they are believed to be upon those points which practically affect the navigation of iron ships, it is felt that much more will be desired by those who have made the magnetism of iron ships a subject of scientific research, or who desire to introduce a mechanical corrective for this error. The Liverpool Compass Committee would gladly have done more towards the elucidation of those yet unsettled points to which reference has been made, and to those quantitative inquiries which the subject suggests; but their efforts have been limited by circumstances, which those who are acquainted with the necessities and competitions of commerce will easily conceive. In no instance has the Committee been enabled to carry out their programme in the mode intended. Even where individual shipowners, regardless of personal inconvenience and expense, have placed their ships at the temporary disposal of the Committee, the impossibility, in the crowded docks at Liverpool, of controlling the movements of other vessels, has rendered all attempts at very exact or complete experiments abortive. It is hoped, however, that the Board of Trade will use its influence in getting those parts of the compass inquiry completed which the Compass Committee have found beyond their power. The Committee would specially express the desire that means may be found to leisurely and carefully swing some large iron ship, both upright and heeled to port and starboard, and in both magnetic hemispheres. The following particulars of the magnetic force of the "Accrington," obtained while she was swung on an even beam, are the most complete which the Committee can offer, and will illustrate the details which they consider desirable. Similar records for several carefully selected positions on board almost any iron ship, not on her first voyage, if obtained in both hemispheres, and with the ship heeled about 10° to port and starboard, would do more, it is conceived, to settle the yet moot points of the inquiry than any other course that could be suggested.

In examining, by means of the following Table and the diagrams in Plates III. and IV., the vertical, lateral, and longitudinal movement of the magnetism of the "Accrington," as her head is turned to the various points of the compass, it is thought the most sceptical must be convinced that an important proportion of the resultant magnetism is due to the earth's induction, and must desire to obtain, in at least one instance, those complete experiments which can alone decide authoritatively how much of a ship's polar compass deviation is due to that magnetism which was, as it were, hammered into her while she

was being built, and how much to the vertical induction from the earth which belongs to the ship's geographical position at the time of the experiment.

	Ship's Head correct Magnetic.	Ship's Head by Compass.	Deviation.	Vibrations of Hor. Needle per Minute.	Force in Direction of Needle.	Dip observed on board.	Ship's Vertical Force in Terms of Earth's Hor. Force.
	° ′	° ′	° ′			° ′	
"Accrington."	N. 1 5 W.	N. 14 40 E.	−15 45	18·75	·8590	49 22	·4176
	N. 22 43 E.	N. 36 53 E.	−14 10	19·53	·9320	—	—
Birkenhead, Great Float, September 1859.	N. 43 25 E.	N. 56 3 E.	−12 38	20·00	·9774	49 12	·3990
	N. 72 13 E.	N. 82 49 E.	−10 36	20·87	1·0618	—	—
Vibrations of horizontal needle on shore 20·23 per minute.	N. 85 45 E.	S. 84 20 E.	− 9 55	21·82	1·1634	—	—
	S. 89 35 E.	S. 79 58 E.	− 9 37	21·00? (22·0)	1·0776 (1·1826)	48 37	·3350
Dip on shore, with weighted dipping needle at right angles to magnetic meridian, 45° 20′.	S. 68 15 E.	S. 60 45 E.	− 7 30	22·40	1·2261	—	—
	S. 42 0 E.	S. 39 54 E.	− 2 6	22·98	1·2904	48 5	·2639
	S. 22 0 E.	S. 25 13 E.	+ 3 13	23·23	1·3186	—	—
	S. 0 10 E.	S. 9 35 E.	+ 9 25	23·23	1·3186	48 10	·2866
	S. 23 0 W.	S. 6 37 W.	+16 23	21·61	1·1411	—	—
	S. 44 0 W.	S. 23 2 W.	+20 58	20·38	1·0149	48 7	·2813
	S. 67 30 W.	S. 45 10 W.	+22 20	18·54	·8399	—	—
	West -	S. 73 5 W.	+16 55	16·90	·6979	48 35	·3314
	N. 63 30 W.	N. 69 W.	+ 2 30	16·22	·6268	—	—
	N. 45 0 W.	N. 35 22 W.	− 9 38	—	—	—	—
	N. 47 0 W.	—	—	—	—	48 45	·3495
	N. 22 23 W.	N. 7 8 W.	−15 15	17·82	·7759	—	—

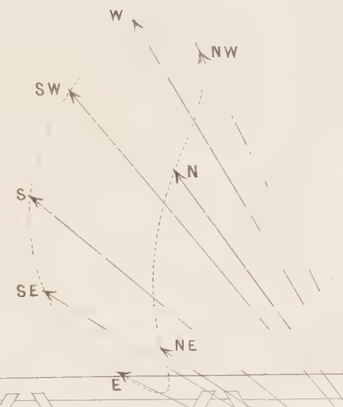
Ship's Head correct Magnetic.	Deviation.	Force in the Direction of the Needle.	Earth's Horizontal Force at Liverpool taken as Unity.			Starboard Angle.	Dip.		Ship's Head by Compass.	Deviation.
			Ship's Horizontal Force.	Ship's Vertical Force.	Ship's Total Force.					
	° ′					° ′	° ′			° ′
N.	− 15 50	·8625	·291	·4125	·5052	234 45	35 12		North	− 15 26
N. by E.	− 15 5	·8968	·270	·4151	·4956	229 45	33 4		N. by E.	− 15 48
N.N.E.	− 14 15	·9254	·250	·4150	·4850	223 45	31 4		N.N.E.	− 15 1
N.E. by N.	− 13 25	·9530	·233	·4100	·4712	218 5	29 37		N.E. by N.	− 14 6
N.E.	− 12 35	·9813	·216	·4010	·4550	213 15	28 19		N.E.	− 13 11
N.E. by E.	− 11 50	1·0140	·206	·3890	·4400	207 45	27 54		N.E. by E.	− 12 18
E.N.E.	− 11 3	1·0573	·200	·3745	·4246	208 30	28 6		E.N.E.	− 11 28
E. by N.	− 10 15	1·1118	·209	·3565	·4130	209 55	30 23		E. by N.	− 10 38
East	− 9 40	1·1746	·229	·3360	·4064	204 20	34 16		East	− 9 51
E. by S.	− 8 55	1·1743	·250	·3190	·4060	209 35	38 5		E. by S.	− 9 14
E.S.E.	− 7 25	1·2266	·269	·3056	·4070	210 20	41 21		E.S.E.	− 8 16
S.E. by E.	− 5 25	1·2677	·286	·2935	·4100	211 30	44 13		S.E. by E.	− 6 24
S.E.	− 2 45	1·2975	·299	·2830	·4120	212 45	46 34		S.E.	− 3 18
S.E. by S.	+ 0 5	1·3129	·312	·2750	·4156	214 5	48 38		S.E. by S.	+ 0 34
S.S.E.	+ 3 5	1·3195	·326	·2700	·4236	216 5	50 22		S.S.E.	+ 4 34
S. by E.	+ 6 15	1·3097	·335	·2670	·4280	217 15	51 27		S. by E.	+ 9 14
South.	+ 9 35	1·2870	·345	·2650	·4350	218 45	52 28		South	+ 14 19
S. by W.	+ 13 5	1·2442	·353	·2665	·4426	220 35	52 57		S. by W.	+ 18 24
S.S.W.	+ 16 20	1·1851	·359	·2690	·4486	225 0	53 9		S.S.W.	+ 21 19
S.W. by S.	+ 19 0	1·1081	·364	·2740	·4556	228 35	53 2		S.W. by S.	+ 22 52
S.W.	+ 21 10	1·0195	·370	·2810	·4640	232 5	52 47		S.W.	+ 22 39
S.W. by W.	+ 22 28	·9232	·379	·2885	·4764	234 50	52 43		S.W. by W.	+ 21 14
W.S.W.	+ 22 20	·8393	·389	·2984	·4900	237 0	52 33		W.S.W.	+ 18 54
W. by S.	+ 20 30	·7624	·390	·3090	·4990	237 25	51 37		W. by S.	+ 15 24
West	+ 16 55	·7018	·387	·3220	·5025	237 55	50 14		West	+ 11 22
W. by N.	+ 10 50	·6622	·375	·3355	·5026	239 15	48 11		W. by N.	+ 7 2
W.N.W.	+ 3 20	·6439	·365	·3485	·5036	241 10	46 19		W.N.W.	+ 2 22
N.W. by W.	− 3 55	·6512	·357	·3620	·5076	243 40	44 36		N.W. by W.	− 2 6
N.W.	− 9 40	·6773	·350	·3750	·5126	244 0	43 2		N.W.	− 6 6
N.W. by N.	− 13 30	·7196	·342	·3875	·5164	243 5	41 26		N.W. by N.	− 9 48
N.N.W.	− 15 18	·7733	·325	·3975	·5130	241 15	39 16		N.N.W.	− 12 38
N. by W.	− 16 0	·8225	·307	·4065	·5096	238 50	37 4		N. by W.	− 14 26

The heeling experiments may be expected to afford approximate values for the subpermanent and induced vertical magnetism of the several ships; but the attempt to estimate them has not proved satisfactory. (See Appendix.) The observations made on board the "City of Baltimore" with the dipping-needle compass are perhaps the most trustworthy for this purpose. This ship's vertical force was large, and the means of the experiments give 1·054, 1·069, and 1·064 respectively, as the vertical force of the ship for heel to port, upright, and heel to starboard in units of the earth's horizontal force at Liverpool. If the whole of the ship's vertical force were subpermanent, a heel of 10° should reduce its effect by ·016; but taking the mean of the two results with the ship heeled, which will be sufficiently accurate for this estimate, the reduction amounts only to ·010, indicating, on the supposition that there would be no change from a heel of 10° in the induced vertical magnetism, that the subpermanent magnetism was $\frac{5}{8}$ of the whole observed, or =·668 of the earth's horizontal force at Liverpool.

"Arrington"

Arrangement of Diagonal Deck Ties on Spar Deck.

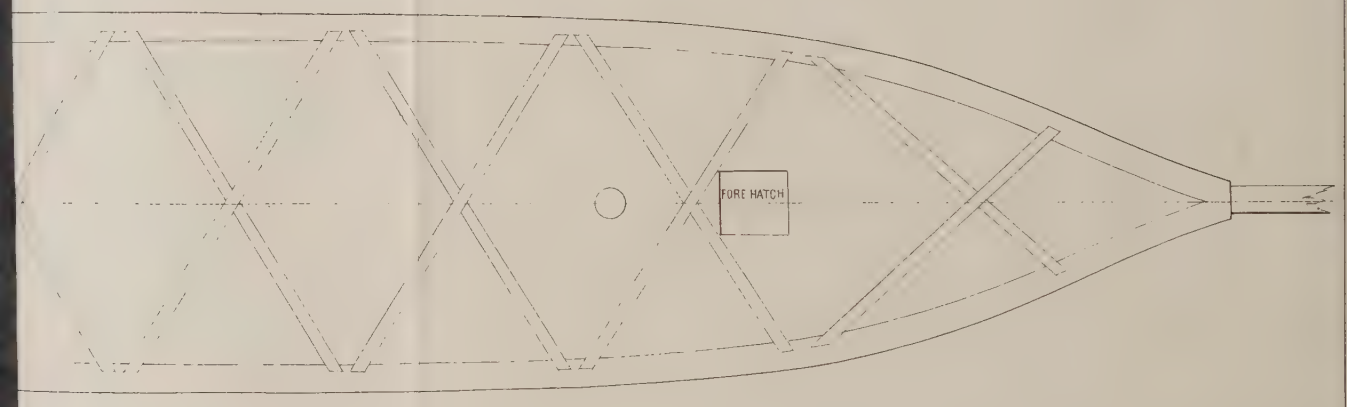
Scale_1/16 Inch = One Foot.



C. *Position of the Standard Compass.*
The arrows show the relative amount and direction of ship's horizontal magnetic force, when ship's head was towards the eight principal points of the compass, correct magnetic.

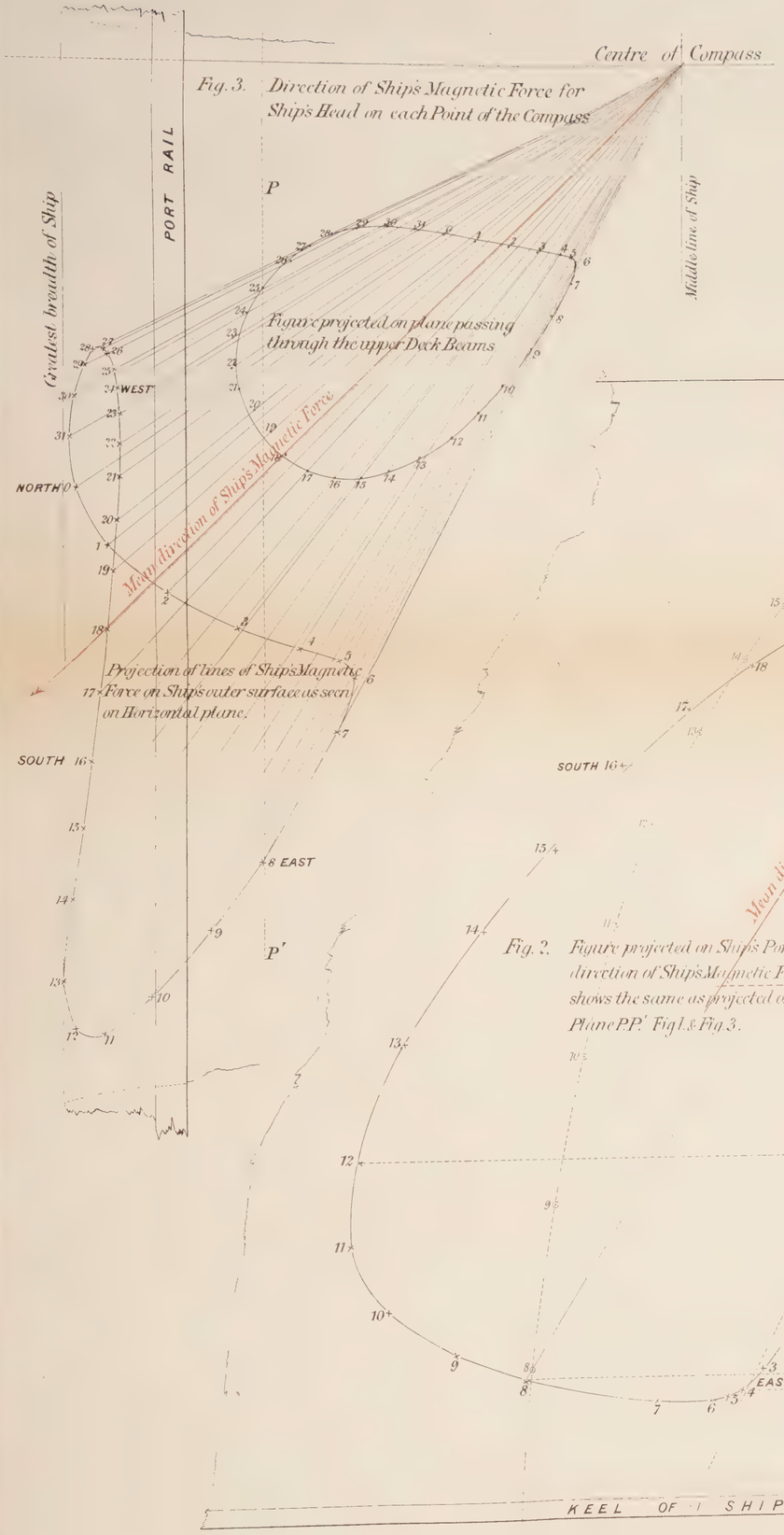
ies on Spar Deck.

PALL MALL



Day & Son Lith.rs to the Queen

IRON SHIP "ACCRINGTON."


Centre of Compass
Fig. 3. Direction of Ship's Magnetic Force for Ship's Head on each Point of the Compass
PORT RAIL
Greatest breadth of Ship
Middle line of Ship
P
Figure projected on plane passing through the upper Deck Beams
Mean direction of Ship's Magnetic Force
Projection of lines of Ship's Magnetic Force on Ship's outer surface as seen on Horizontal plane.
NORTH
WEST
SOUTH
EAST
P'

PORT RAIL
Mean direction of Ship's Magnetic Force
Fig. 2. Figure projected on Ship's Port Side by lines in direction of Ship's Magnetic Force. The dotted curve shows the same as projected on the fore & aft vertical Plane P.P.' Fig 1. & Fig 3.
NORTH
WEST
SOUTH
EAST
Forward
KEEL OF SHIP
P'

Centre of Compass
Direction of Ship's Magnetic Force on fore & aft vertical plane. Ship's Head South
Do Do Ship's Head E. or W.
D. D. Ship's Head North
P
Mean direction of Ship's Magnetic Force
Fig. 1. Half of Section of Ship showing direction of Ship's Magnetic Force from position of Standard Compass on transverse vertical plane for Ship's Head on each point of the Compass. (Correct Magnetic)
NORTH
WEST
SOUTH
EAST
P'

SCALE OF FEET.

0 5 10 15 20 25 30 35 FEET

Day & Son, Lith^rs to the

At present the only direct experiments before the public upon the changes which occur in the vertical magnetism of an iron ship on change of geographical position, are those made by Dr. Scoresby during his voyage in the "Royal Charter." The particulars are given in the following Table, which has been extracted from his posthumous volume describing this voyage, p. 270.

Outward Passage.

Date.	Latitude.	Ship's Head (True Magnetic).	Terrestrial Dip.	Station I. Poop, 40 Feet from Stern.		Station II. Poop, 100 Feet from Stern.		Station III. Standard, 181 Feet from Stern.	Station IV. Forecastle, 273 Feet from Stern.		Station V. 284 Feet from Stern.	Ship's Heeling.
				Starb^{d} Dip.	Port Dip.	Starb^{d} Dip.	Port Dip.	Midships Dip.	Starb^{d} Dip.	Port Dip.	Midships Dip.	
	° ′	°	°	°	°	°	°	°	°	°	°	°
Mar. 8	6 58 S.	S. 43 W.	10 N.	—	—	—	—	34½ N.	—	—	—	7 Starb^{d}.
11	16 46	11	3½ S.	—	—	—	—	16	—	—	—	7 Starb^{d}.
12	19 30	8 E.	10	—	—	(15 in. abaft.)		6¾	—	—	—	7½ Starb^{d}.
13	23 30	S.	15	5¾ S.	4 N.	—	—	½	—	—	6 S.	9 Starb^{d}.
14	28 32	S. 5 E.	23	—	—	—	—	8¼ S.	25¼ S.	15½ S.	15¾	9 Starb^{d}.
	29 20 W.											
15	32 29 S.	21	28½	16¼	8¼ S.	29 S.	25 S.	13¼	—	—	—	—
	27 32 W.											
17	36 15 S.	24	36	—	—	31½	35½	23¼	33	41½	28	5 Starb^{d}.
19	41 13	47	44	27⅓	26	38½	53⅝	33	—	—	—	10 Starb^{d}.
22	42 9	47	50½	33½	35¼	41⅝	59⅝	43	—	—	—	4 Port.
25	43 52	37	57¾	42¾	44¼	53¼	65¾	52	—	—	—	2 Port.
28	45 49	—	62½	—	—	—	—	62	—	—	—	—
April 3	47 31	50	70¼	63	70	67½	79½	70½	—	—	—	6 Starb^{d}.
11	44 24	82	73½	68¾	78¾	—	—	70	—	—	—	—
12	44 7	E. 3 N.	73½	—	—	71½	87½	75½	72	85½	75½	1 Port
15	40 48	N. 10 E.	—	—	—	—	—	70½	—	—	—	6 Starb^{d}.
						Port Philip.						
21	37 52	—	—	—	—	—	—	66¾	73⅛	69	68	—

Homeward Passage.

Date.	Latitude.	Ship's Head (True Magnetic).	Terrestrial Dip.	Station I. Poop, 40 Feet from Aft.		Station II. Poop, 100 Feet from Aft.		Station III. Standard.	Station IV. Forecastle.			Ship's Heeling.
				Starb^{d} Dip.	Port Dip.	Starb^{d} Dip.	Port Dip.	Mean Dip.	Midships Dip.	Starb^{d} Dip.	Port Dip.	
	° ′	°	°	°	°	°	°	°	°	°	°	°
May 30	50 45 S.	S. 5 E.	76 S.	72½ S.	72¾ S.	—	—	78½ S.	75⅜ S.	76¾ S.	78¾ S.	7 Starb^{d}.
June 5	52 26	E. 17 N.	74½	70	82	—	—	77⅓	78¾	—	—	0
17	56 18	11	71	—	—	—	—	76¾	78½	74	89½	6 Starb^{d}.
July 2	48 45	N. 20 E.	48	26¼	29½	—	—	45⅓	64	61	66	1 Starb^{d}.
11	32 33	25	29½	2½ N.	10 N.	21¼ S.	29 S.	28	49	—	—	10 Starb^{d}.
14	22 52	7	16½	20	26½	9½ S.	4	14	39½	41	42	3 Starb^{d}.
17	13 28	18	0	34½	38⅓	15½ N.	7¾ N.	2¾ N.	21¼	19	24⅓	3 Port.
21	0 36 N.	22	23½ N.	50	54	43	40	27½	12½ N.	15 N.	6 N.	4 Port.
24	9 17	28	35	56¼	59½	52	53¼	35	29¾	—	—	0
29	18 38	25 W.	49	67¼	68¼	62¼	65¼	54⅓	52	—	—	0
Aug. 2	27 11	10 E.	58¼	72	73	71½	72½	60¾	60¼	—	—	0
6	36 5	40	64½	75½	75¼	74¾	78	68¼	68¼	—	—	0

Vibration experiments were also tried by Dr. Scoresby, to ascertain the magnetic force in the direction of the dipping needle. Some of these are recorded in the volume, but without those details which are required to make them useful here. In consequence, only those observations for dip which were made on or near the magnetic equator, and those which show where the observed dip was zero, can be employed for roughly estimating the components of the ship's vertical magnetism.

At the station of the Admiralty compass, the four first observations show that the dip at the magnetic equator was about 20° 40′, indicating, if the earth's magnetic force be taken as unity, and on the supposition that the force in the direction of the horizontal needle was the same as the earth's on the magnetic meridian, a vertical magnetic force in the ship of ·379, which, in terms of earth's horizontal magnetic force at Liverpool, would be equal to ·542, and with a heel of the ship of 10° would produce a deviation towards the high side of half a point of the compass. Five days afterwards, the observed dip is only 0° 30′, while the earth's dip for the position is −15°. Multiplying earth's total force here by sine 15° 30′, and reducing the product to the same terms as before, the ship's vertical force is ·326, showing a change equal to −·216, which must be made up by a very small quantity due to difference in the earth's horizontal force at the two stations, by a moderately large quantity being the ship's modulus at this station for vertical induction multiplied by sine of earth's dip, and by a reduction in the ship's sub-permanent magnetism of probably about the same amount. If the change

were due entirely to the ship's capacity at this station for vertical induction, it would indicate a co-efficient for induction of ·285, which is much greater than is consistant with other cases to be alluded to in a later part of this Report, while the supposed reduction is countenanced by the dip of 2° 45′, which was observed at this station on the magnetic equator on the homeward voyage, when the ship's vertical magnetism is only ·069. As this station was near the middle of the ship, the four and aft inductive magnetism can have had very little influence on the observed dip, so that the sub-permanent magnetism must have undergone a very large reduction.

At the aftermost station, if the mean of the two observed dips be taken as the dip belonging to the middle of the deck at this place, the ship's vertical force here will be very nearly the same as that observed at the standard station, or ·326, the estimate being subject, as before, to any errors arising from the supposition that the horizontal force in the direction of the needle was the same as that of the earth in the magnetic meridian. On the homeward voyage, the needle in this position appears to have had no dip when the earth's dip was −33°, and earth's total force about ·9, that at Liverpool being taken as 1·4. At the magnetic equator the observed mean dip will be 36° 25′, with the earth's total force about ·86. These give respectively ·872 and 1·078 as the values of the ship's vertical magnetic force in terms of earth's horizontal force at Liverpool. The latter value is sufficient to produce at Liverpool a deviation of 10° 48′ by the ship heeling 10° to port or starboard. The difference between these two values will be due to some extent, to the difference of the earth's horizontal induction at the two places of observation, but chiefly to the vertical induction indicated by the earth's dip of −33°. Neglecting for a moment the smaller cause of difference, the coefficient for the ship's inductive capacity will be ·42. But as this position was near one end of the ship, the horizontal induction through the length of the ship may be expected to have an important influence on the ship's vertical force. Thus, with ship's head southerly on the outward voyage, the indicated vertical force is only ·326, while on the homeward voyage, after the sub-permanent magnetism of the ship may be supposed to have undergone a reduction it is more than three times as much. On the hypothesis that through the ship having been in nearly opposite directions the observed values are the sum and difference of the two forces, the sub-permanent vertical magnetism of the ship at this station will be ·702 and the vertical effect of the horizontal induction will be ·376.

At the forecastle station no dip by observation will correspond with about 10° of south terrestrial dip, on the outward voyage. On the homeward voyage, the observed dip at the magnetic equator was −21° 15′, and no observed dip will have occurred in about 15° of north geographical dip. At this station there is evidently a minus sub permanent magnetism, and the same indication as at the stern of the influence of the horizontal induction through the length of the ship upon the observed vertical force. Here the ship's vertical force at the equator is ·55, which, with a heel of 10° at Liverpool, would produce a deviation of the needle to the *low* side of the ship of 5° 30′; so that if compasses were placed at these two stations they would show a difference in the direction of the ship's head from heeling 10° of no less than 16 degrees.

These are necessarily very rough approximations to the elements of the vertical magnetism of the "Royal Charter," but the Committee were unwilling to pass over experiments which appear to have cost Dr. Scoresby much care and labour, and which are, it is believed, the only experiments of the kind which have yet been tried at sea on board an iron ship. They will at least serve to show what kind of observations will be requisite if another voyage of the kind should be undertaken; and that it will be essential to make complete vertical and corresponding horizontal force experiments at several stations on board the ship, and with her head as frequently as possible in opposite directions, before anything like a satisfactory estimate of the components of a ship's vertical magnetism, and the changes which occur during a sea voyage, can be obtained.

Before turning from these experiments to the compass logs of living navigators, the Compass Committee desire to record a passing tribute of respect to the enterprise and zeal of the late Dr. Scoresby, and to express a sympathy, which must be felt by all who have read the posthumous account of his voyage, in the intense interest with which he watches every indication of change in the magnetic condition of the "Royal Charter" on her outward trip, and the complete inversion of her inductive magnetism at Melbourne; the evident pleasure with which he again notes the first indication of northern induction near the stern of the ship on the homeward voyage, and its gradual progress towards the ship's bow as she gets further and further North, until he is able to show that the whole of the top sides of the ship have returned to their original magnetic condition.

It is hoped that the doctor's example will yet stimulate the intelligent captains of ne of our large iron ships to fully study the subject of magnetism, and to make those ntitative and exact experiments which are still so much needed. How much they ıld accomplish with a little of the doctor's enthusiasm for his favourite science !

At the time the Compass Committee commenced their inquiry, doubts were frequently pressed by persons who were thought to be well informed on the subject, as to the cor- tness of the reports made by the captains of some iron ships, of the large deviations ich they had experienced in the southern hemisphere ; and this incredulity was certainly couraged by some interested compass adjusters, as well as by some shipowners who med to fear that iron ships would thereby acquire a bad name. Trustworthy evidence s, however, very soon produced to the Committee of the extent of the deviations ich arise from the change of geographical position. Two examples will be sufficient. e steering compass of a new iron ship, the "Harvest Home," built with her head to eastward, was carefully adjusted by Mr. Gray at Liverpool before she proceeded to East Indies in 1855. The adjustment was made under the inspection of members of Committee, who were witness to the skill with which it was effected. On the ival of this ship at Calcutta the captain wrote to his owners as follows:

'My compasses acted very well until I entered the 20th degree of South latitude, en the binnacle compass commenced to deviate considerably. I found the greatest ount of deviation in 39° South, and from 25° to 45° east longitude, the binnacle mpass then being 7½ points out. Unfortunately I had the standard compass broken to ces with a heavy sea. I afterwards placed the azimuth compass on that part of the ıse where no deviation exists. It has ever since given me entire satisfaction."

The second example is from the log of the "Evangeline" on a similar voyage in 1855, l records the difference observed between the steering and standard compasses.

Ship "Evangeline" from Liverpool to Calcutta, HENRY FAIRLEM, Commander.

Date.	Latitude		Longitude.		Ship's Head by Standard Compass.	Ship's Head by Steering Compass.	Variation.	Deviation of Binnacle Compass, on the Supposition that the Standard was correct.
	By Observation.	By Dead reckoning.	By Chronometer.	By Dead reckoning.				
1855.	° ′	° ′	° ′	° ′			° ′	°
30	18 2 N.	18 4 N.	28 50 W.	29 13 W.	W. 45 S.	W. 45 S.	—	0
31	15 59	15 57	32 01	31 17	S.W.	S.W.	—	0
1	13 15	13 14	33 32	—	S.S.W.	S.S.W.	—	0
3	9 17	9 19	34 7	33 39	South	South	—	0
4	—	8 38	—	33 57	S. by E.	S. by E.	—	0
9	5 42	5 46	19 40	19 42	W. ½ N.	W. by N.	—	5½ W.
17	5 02 S.	4 57 S.	27 55	27 34	W. 48 S.	W. 40 S.	—	8 W.
18	7 35	7 44	30 10	29 45	W. 48 S.	W. 40 S.	—	8 W.
23	21 21	21 18	31 30	31 20	S. 11 E.	S. 4 E.	7 30 W.	7 W.
26	24 33	24 25	29 40	29 25	S. 28 E.	S. 40 E.	10 0 W.	12 E.
27	27 7	27 9	26 45	27 01	S. 53 E.	S. 70 E.	—	17 E.
28	28 53	28 47	22 00	22 15	—	—	13 0 W.	—
29	29 19	—	18 14	—	East	N.E. by E. ½ E.	—	28 E.
30	27 55	27 55	—	14 54	N. 85 E.	N. 56 E.	—	29 E.
2	32 46	—	14 31	—	S.E. ½ S.	E.S.E.	—	28 E.
4	33 42	33 45	9 20	9 22	S. 50 E.	S. 74 E.	—	24 E.
6	35 50	35 55	4 11	3 57	S. 40 E.	S. 75 E.	—	35 E.
8	—	37 02	—	1 03	N. 45 E.	—	20 0 W.	—
11	39 41	39 42	15 17 E.	15 26 E.	S 55 30 E.	N. 80 E.	—	44 30 E.
15	39 10	39 14	26 55	26 59	S. 50 30 E.	N. 68 E.	—	61 30 E.
16	—	39 39	—	30 01	S. 50 E.	N. 78 E.	—	52 0 E.
17	39 33	39 39	32 7	31 44	S. 33 E.	N. 79 E.	—	68 0 E.
18	40 35	40 34	36 30	36 31	S. 45 E.	N. 79 E.	—	56 0 E.
20	—	40 21	—	46 47	S. 79 E.	N. 52 E.	—	49 0 E.
2	30 02	30 05	76 40	76 43	N.E. by E.	N.E. by N. ¼ N.	—	25 30 E.
4	27 15	27 15	80 01	79 57	N. 69 E.	N. 58 E.	—	11 0 E.
6	—	20 59	—	81 28	N. 11 E.	N. 22 E.	—	11 0 W.
11	6 15	6 11	83 33	83 50	N. by E.	N. by E.	—	0
20	10 49 N.	10 53 N.	89 27	89 18	North	North	—	0
24	17 10	17 12	88 48	88 32	N. by E.	N. by E.	—	0

These, and similar records, were sufficient to show that the extreme changes occurred high south latitude, and when the ship was on easterly and westerly courses, clearly oving that the change was in the fore and aft magnetism of the ship, and chiefly due inductive magnetism. An almost total absence, however, of recorded azimuths or mplitudes made many of these logs very nearly worthless for the purpose of this investi- tion. The mode of navigating many iron ships may be described by the following otation from the journal of Dr. Scoresby's voyage in the "Royal Charter." "The captains of ships proceeding from Australia to the eastward appear generally to be guided in their allowances on the dead reckoning by the agreement or differences discovered from day to day betwixt the positions of the ship, derived from suppositious allowances for compass errors, and the positions indicated by celestial observations.

" If they find themselves considerably to the southward of their reckoning on any " particular day, they allow more easterly variation or deviation proportionally, or the " converse. This practice, when the sun can be regularly seen, and whilst the course " lies wide of any land or rocks, does very well; but when, as is not unfrequently the " case, celestial observations may not be attainable for days together, or when the ship's " course may lie pretty nearly in the direction of land, and especially when a change " of wind may oblige a change in the course, and so in the ship's deviation, a reliance " upon such inverse processes may obviously prove not only very embarassing, but in " heavy weather, with fog or darkness, not a little hazardous."

The advocates of this " inverse process," which scarcely deserves the name of navigation, have no doubt been forced to adopt it to some extent through the absence of proper variation charts.

With the strongest desire to make every log contribute something towards our instruction on the compass changes which are observed at sea, very little progress was possible until such records as those kept by Captain Dalison of the " Advance," Captain S. Nickels of the " Astræa," and a few others of nearly equal merit, were placed at the disposal of the Committee. Abstracts of some of these logs are given in the Appendix, as they form the basis on which much of this Report must rest, and it is believed they may yet be of further service to those who desire to investigate the magnetic changes of iron ships. They may serve too as models for the information and guidance of the young navigator. The usual practice with these, as with other careful commanders of iron ships, has been to keep a daily record of the direction of ship's head by each compass, and by frequent azimuths and amplitudes to ascertain the total error of the standard compass. It will be seen that they also, as opportunities occur, partially swing the ship, and thus obtain the error on adjacent courses, or upon those which are likely to be soon required. As the total error includes both variation and deviation, additional columns have been added to the logs to show these separately. The data for variation have usually been corrected, as far as possible, by the aid of General Sabine's magnetic contributions to the Philosophical Transactions, for copies of which, as well as other works on magnetism, the Committee are indebted to this gentleman. More recently the variation has been conveniently obtained from the variation chart by Mr. Evans, published by the Admiralty.* Any discrepancies in the variation are usually so small, compared with the errors of observation at sea, that strict accuracy in this matter, or in the columns inserted to show the relative vertical and horizontal force of the earth, need not be insisted upon.

The logs will be chiefly employed here to ascertain the proportion which exists in the different ships between their sub-permanent and inductive magnetism, with a view to the practical application of the results to the permanent correction of the compasses of iron ships, and more especially to the correction of the steering compass in its ordinary position.

The theory on which the examination has been made is the most simple which could be adopted, and is believed to be sufficiently accurate for the purpose. In fact the results obtained will indicate, of themselves, the extent to which other considerations should be introduced. The theory adopted is, that the deviations observed when the ship is upon or near to the cardinal points of the compass will give very approximate values for the ship's fore and aft and transverse magnetism; that where observations for deviation are made on several points near to the cardinal points, a curve drawn as nearly as possible through a projection of these deviations to the cardinal point will satisfactorily represent an observation taken on the cardinal point; that the deviation observed will be partly due to permanent and partly to induced magnetism, that the part due to the former will vary in the inverse ratio of the earth's horizontal force at the places of observation, and that the part due to the latter will vary as the tangent of the corresponding dip.

To facilitate reference, a portion of Mr. Evans's chart of variation has been introduced, with the addition of lines of equal magnetic dip and of equal horizontal force. The data for relative values of the earth's horizontal force at the different stations have been taken from the Atlas des Erdmagnatismus von Gauss und Weber. Leipsig, 1840.

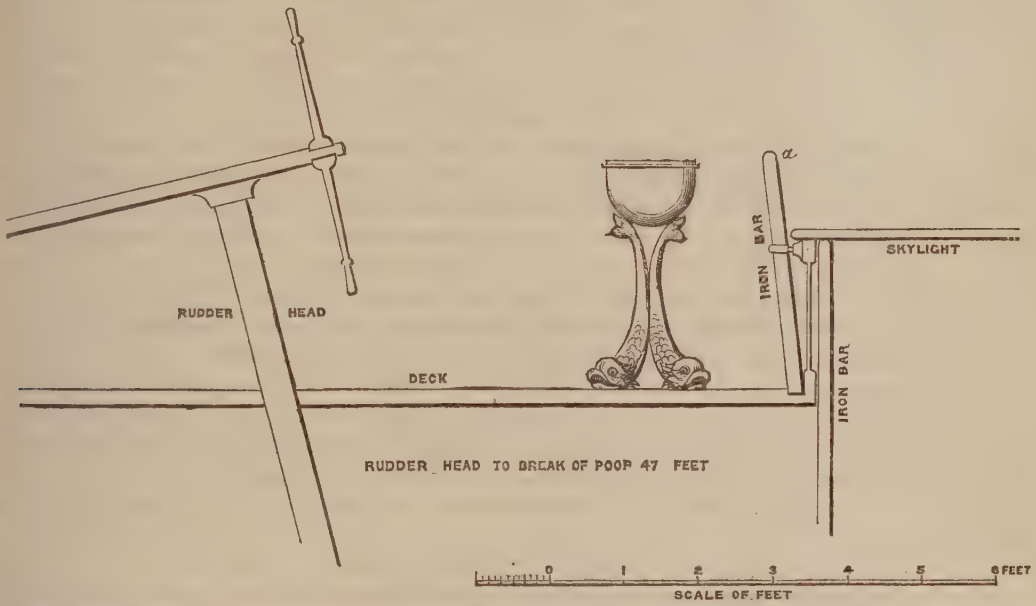
" Advance." Captain Dalison.

This iron ship is of about 600 tons register, and was built in Liverpool, with her head a few degrees to the South of East. Her steering and standard compasses were both

* This very admirable variation chart of the world will do much towards enabling the captains of iron ships to ascertain what portion of the observed compass error is due to deviation and what to variation, as well as to ascertain how far the former is affected by heeling, which is almost impossible by the " inverse process."

compensated; but after she had been at sea a few days, her commander, observing that the compasses did not agree with each other, removed the magnets altogether from the standard compass, but did not interfere with the compensation of the steering compass. In South magnetic latitude the difference between the compasses increased, until it was sometimes four and five points, and on one occasion in 62° South dip, a difference of about eight points is recorded. The annexed sketch shows the position of the steering compass with respect to the rudder-head, &c. The azimuth compass was placed about midway between the steering compass and the break of the poop, which is 47 feet from the front of the stern-post. At the break of the poop is an iron bulk-head, reaching to the poop-deck. On her first outward trip, part of her cargo consisted of 220 tons of bar, sheet, and hoop iron.

"ADVANCE."



The following Table contains the analysis of the chief observations on the first voyage:—

No. of observation.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ by Earth's Hor. Force at Liverpool.	Steering Compass. Deviation towards Ship's Head.	Steering Compass. Force to Ship's Head in Terms of Earth's Hor. Force at each Position.	Steering Compass. Deviation towards Ship's Starboard Side.	Steering Compass. Force towards Ship's Starboard Side in Terms of Earth's Hor. Force at each Position.	Standard Compass. Deviation towards Ship's Head.	Standard Compass. Force to Ship's Head in Terms of Earth's Hor. Force at each Position.	Standard Compass. Deviation towards Ship's Starboard Side.	Standard Compass. Force towards Ship's Starboard Side in Terms of Earth's Hor. Force at each Position.
						OUTWARD.							
1	53 30 N.	3 0 W.	70 0	2·75	1·0	Probably 0	0	Probably 0	0	—	—	—	—
2	4 16 S.	22 23 W.	15 0	·2679	·55	About 15 0	·2588	2 0	·0349	Probably very small +	—	10 45	·1865
3	19 40 S.	22 2 W.	−11 0	·1944	·595	About 15 0	·2588	—	—	—	—	—	—
4	23 10 S.	21 33 W.	−16 0	·2867	·6	—	—	—	—	—	—	13 40	·2363
5	27 16 S.	11 48 W.	−27 0	·5095	·65	About 32 0	·5299	—	—	—	—	17 0	·2924
6	32 0 S.	58 0 E.	−62 0	1·8807	·83	53 0	·7986	About 5° or 6°	·0872 ·1045	—	—	26 0	·4384
7	20 27 S.	65 27 E.	−53 30	1·3270	·73	—	—	About 3° or 4°	·0523 ·0698	—	—	14 0	·2419
8	11 7 S.	67 51 E.	−41 0	·8691	·63	—	—	About 3° or 4°	·0523 ·0698	—	—	9 30	·1650
						HOMEWARD.							
9	6 30 N.	84 30 E.	− 6 0	·1051	·48	About 20 0	·3420	About 1 30	·0262	Very small.	—	8 0	·1392
10	8 0 S.	83 30 E.	−34 0	·6745	·55	26 30	·4462	—	—	—	—	—	—
11	32 30 S.	35 0 E.	−57 30	1·5697	·82	42 0	·6691	Probably −2 30	−·0436	−1 30	−·0262	—	—
12	16 40 S.	4 30 W.	−17 0	·3057	·61	—	—	−2 30	−·0436	—	—	9 0	·1564
13	0 0	19 0 W.	20 0	·3640	·55	—	—	−6 0	−·1045	—	—	7 0	·1219
14	18 0 N.	30 0 W.	50 30	1·2131	·62	7 0	·1219	−2 15	−·0393	4 0	·0698	9 30	·1650
15	27 0 N.	32 30 W.	60 0	1·7321	·72	—	—	0 0	—	—	—	12 30	·2164

This table affords the following equations for the steering compass, in which x is the coefficient for ship's vertical induction, and y is the ship's permanent magnetism towards the head:—

Number of Observation.	Equations for Steering Compass arranged in order of Earth's Dip.	Values for x and y on Voyage outward.		Values for x and y on Voyage homeward.	
		x	y	x	y
1	$-2{\cdot}75\,x + y = 0$	—	—	—	—
14	$-1{\cdot}2131\,x + {\cdot}62\,y = {\cdot}1219$	—	—	·2478	·6815
2	$-{\cdot}2679\,x + {\cdot}55\,y = (\text{about})\ {\cdot}2588$	·2079	·5717	—	—
9	$\cdot1051\,x + {\cdot}48\,y = {\cdot}3827$	—	—	·2400	·6600
3	$\cdot1944\,x + {\cdot}59\,y = (\text{about})\ {\cdot}2588$	·1425	·3919	—	—
5	$\cdot5095\,x + {\cdot}65\,y = (\text{about})\ {\cdot}5299$	·2307	·6344	—	—
10	$\cdot6745\,x + {\cdot}55\,y = {\cdot}4462$	—	—	·2040	·5610
11	$1{\cdot}5697\,x + {\cdot}82\,y = {\cdot}6691$	—	—	·1749	·4810
6	$1{\cdot}8807\,x + {\cdot}83\,y = {\cdot}7986$	·1894	·5209	—	—
	Means	·1916	·5297	·2167	·5959

Taking the mean of means, the coefficient for the inductive capacity of the ship at the station of the steering compass appears to be equal to ·2046 of earth's horizontal force at Liverpool, and the ship's permanent magnetism, including that of the compensating magnets, ·5628 of the same unit. The permanent magnetism of the ship alone is probably about ·4.

The standard compass during this voyage shows only a very small change in the ship's fore and aft magnetism. The deviations from the transverse magnetism vary from 7° to 26°; a slight consideration of the table is sufficient to show that nearly the whole is due to permanent magnetism. Had a transverse magnet been applied to this compass at Liverpool, sufficient to have produced a minus deviation of 20°, it would have been slightly under compensated during the first part of the outward voyage, and, through a reduction in the ship's transverse magnetism, would have been slightly over compensated on the homeward voyage; and the maximum polar deviation would probably have never exceeded half a point.

The standard compass on the second voyage of this ship was placed further forward, so as to be between the mizen and main masts, immediately over the break of the poop, about 47 feet from the rudder head, and above an iron bulk-head. It was seven feet four inches above the poop deck, and eleven feet two inches above the main deck; a position in which the deviations were found to be very small.

The magnets at the steering compass were not moved. Whether they had decreased in power, as seems probable, is not known, nor whether there was any deviation observed in port.

"Advance." Captain Dalison. 2d voyage, 1856–57.

No. of Observation.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ Earth's Hor. Force at Liverpool.	Steering Compass.				Standard Compass.			
						Deviation towards Ship's Head.	Force to Ship's Head in Terms of Earth's Hor. Force at each Position.	Deviation towards Ship's Starboard Side.	Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Position.	Deviation towards Ship's Head.	Force to Ship's Head in Terms of Earth's Hor. Force at each Position.	Deviation towards Ship's Starboard Side.	Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Position.
						OUTWARD.							
			° ′			° ′		° ′		° ′		° ′	
1	41 24 N.	12 41 W.	65 30	2·1943	·84	·8 0	·1392	—	—	— 1 40	—	2 50	—
								About					
2	31 0 N.	20 40 W.	61 0	1·8040	·73	12 50	·2221	— 4 0	—	—	—	—	—
3	29 30 N.	21 46 W.	60 0	1·7321	·72	—	—	—	—	— 0 20	—	7 45	—
4	26 29 N.	23 5 W.	57 0	1·5399	·68	10 30	·1822	—	—	—	—	—	—
						About		About		About			
5	19 37 N.	26 30 W.	51 30	1·2572	·58	9 30	·1650	0 45	—	— 0 45	—	5 45	—
6	0 28 N.	27 30 W.	23 0	·3907	·55	12 0	·2079	—	—	1 5	—	—	—
7	6 36 S.	30 50 W.	16 0	—	·55	—	—	— 0 24	—	—	—	3 36	—
								About				About	
8	14 12 S.	32 7 W.	1 0	·0175	·56	16 15	·2798	— 3 45	—	1 15	—	5 30	—
9	21 0 S.	29 0 W.	— 12 0	·2126	·57	Head E. 15 20 Head W. 20 20 Mean 17 50	·3062	2 20	—	— 1 30	—	9 0	—
10	41 4 S.	20 2 E.	— 56 30	1·5108	·78	40 51	·6541	—	—	—	—	—	—
11	40 5 S.	31 31 E.	— 60 0	1·7321	·81	50 0	·7660	—	—	2 10	—	—	—
								About					
12	38 48 S.	57 0 E.	— 65 0	2·1445	·84	50 0	·7660	— 5 0	—	10 0	—	—	—

No. of Observation.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ Earth's Hor. Force at Liverpool.	Steering Compass. Deviation towards Ship's Head.	Steering Compass. Force to Ship's Head in Terms of Earth's Hor. Force at each Position.	Steering Compass. Deviation towards Ship's Starboard Side.	Steering Compass. Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Position.	Standard Compass. Deviation towards Ship's Head.	Standard Compass. Force to Ship's Head in Terms of Earth's Hor. Force at each Position.	Standard Compass. Deviation towards Ship's Starboard Side.	Standard Compass. Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Position.
			° ′			° ′		° ′		° ′		° ′	
13	28 48 S.	72 53 E.	−61 0	—	·76	—	—	About −5 0	—	—	—	7 30	—
14	23 1 S.	73 14 E.	−56 0	—	·71	—	—	About −4 0	—	—	—	4 22	—
15	17 0 S.	72 52 E.	−51 0	—	·67	—	—	About −4 0	—	—	—	3 8	—
16	8 20 S.	73 49 E.	−35 0	—	·59	—	—	−1 30	—	—	—	5 45	—
17	5 17 S.	74 15 E.	−29 0	—	·56	—	—	−1 30	—	—	—	5 0	—
18	2 22 S.	74 36 E.	−25 0	—	·53	—	—	About −1 30	—	—	—	5 49	—
19	0 11 S.	75 7 E.	−20 0	—	·52	—	—	About −1 30	—	—	—	4 34	—
						HOMEWARD.							
20	7 11 N.	79 25 E.	−6 0	—	·47	—	—	About −2 0	—	—	—	3 29	—
21	6 36 S.	91 36 E.	−27 30	·5206	·51	21 40	·3692	−0 40	—	1 0	—	2 39	—
22	8 0 S.	87 0 E.	−32 45	·6432	·53	34 40 or ?24 40	·4173	—	—	1 15	—	—	—
23	19 11 S.	63 12 E.	−52 30	1·3032	·72	37 0	·6018	—	—	About 3 0	—	—	—
24	19 58 S.	60 22 E.	−53 0	—	·74	—	—	—	—	3 14	—	—	—
						After staying a Month at St. Louis.							
25	20 20 S.	56 43 E.	−53 0	1·3270	·76	36 15	·5913	—	—	3 3	—	—	—
26	27 38 S.	45 37 E.	−57 30	1·5697	·82	About 39 0	·6293	—	—	3 21	—	—	—
27	29 12 S.	42 8 E.	−57 30	1·5697	·83	About 37 40	·6111	—	—	1 40	—	—	—
28	34 8 S.	26 3 E.	−57 0	1·5399	·80	About 40 0	·6428	—	—	1 53	—	—	—
29	34 33 S.	18 14 E.	−52 30	—	·77	—	—	−6 30	—	1 47	—	2 30	—
30	30 57 S.	13 8 E.	−49 0	—	·74	—	—	−4 5	—	—	—	3 0	—
31	23 20 S.	3 38 E.	−33 0	·6494	·66	About 27 0	·4540	−6 42	—	1 40	—	0 58	—
32	10 30 S.	11 15 W.	−2 0	—	·58	—	—	−4 0	—	—	—	3 0	—
33	6 58 S.	14 32 W.	5 30	—	·57	—	—	−1 0 or −5 20	—	0 40	—	5 30	—
34	5 15 S.	12 20 W.	9 0	·1584	·57	About 18 30	·3173	−1 30	—	1 24	—	5 50	—
35	18 59 N.	30 35 W.	51 30	—	·62	—	—	−3 18	—	—	—	3 50	—
36	25 22 N.	32 57 W.	58 0	—	·70	Wind E. force 6		+0 33	—	—	—	8 45	—
37	32 0 N.	33 23 W.	64 0	2·0503	·78	Wind E.S.E. force 3		−1 35	—	—	—	9 20	—
38	33 39 N.	33 23 W.	65 30	2·1943	·82	About 6 0	·1045	−0 52	—	About 0 56	—	8 8	—
39	36 2 N.	31 46 W.	67 0	2·3559	·88	1 50	·0320	—	—	−4 0	—	—	—

This table affords the following equations for the steering compass. x and y represent as before ship's capacity for vertical induction, and ship's permanent magnetism towards the head. On the outward voyage, the cargo consisted in part of 260 tons of bar, hoop, and sheet iron:—

Number of Observation.	Equations for Steering Compass arranged in order of Earth's Magnetic Dip.	Values for x and y on Voyage outward. x	Values for x and y on Voyage outward. y	Values for x and y on Voyage homeward. x	Values for x and y on Voyage homeward. y
Mean of 39 and 38.	$-2{\cdot}2753\,x + {\cdot}85\,y = {\cdot}0683$. (For combination with other equations for the homeward voyage)	—	—	—	—
Mean of 1, 2, and 4.	$-1{\cdot}8461\,x + {\cdot}75\,y = {\cdot}1812$. (For combinations with other equations for the outward voyage)	—	—	—	—
5	$-1{\cdot}2572\,x + {\cdot}58\,y =$ (about) ·1651	·1465	·6022	—	—
6	$-{\cdot}3907\,x + {\cdot}55\,y = {\cdot}2079$	·0779	·4333	—	—
34	$-{\cdot}1584\,x + {\cdot}57\,y = {\cdot}3173$	—	—	·1986	·6118
8	$\cdot0175\,x + {\cdot}56\,y = {\cdot}2789$	·1055	·5013	—	—
9	$\cdot2126\,x + {\cdot}57\,y = {\cdot}3062$	·1043	·4983	—	—
21	$\cdot5206\,x + {\cdot}51\,y = {\cdot}3692$	—	—	·1741	·5462
22	$\cdot6432\,x + {\cdot}53\,y = {\cdot}4173$	—	—	·1817	·5669
31	$\cdot6494\,x + {\cdot}66\,y = {\cdot}4540$	—	—	·1659	·5246
23	$1{\cdot}3032\,x + {\cdot}72\,y = {\cdot}6018$	—	—	·1684	·5310
25	$1{\cdot}3270\,x + {\cdot}76\,y = {\cdot}5913$	—	—	·1578	·5025
10	$1{\cdot}5108\,x + {\cdot}78\,y = {\cdot}6541$	·1357	·5757	—	—
28	$1{\cdot}5399\,x + {\cdot}8\,y = {\cdot}6428$	—	—	·1572	·5011
26	$1{\cdot}5697\,x + {\cdot}82\,y = {\cdot}6293$	—	—	·1497	·4809
27	$1{\cdot}5697\,x + {\cdot}83\,y = {\cdot}6111$	—	—	·1436	·4647
11	$1{\cdot}7321\,x + {\cdot}81\,y = {\cdot}7660$	·1531	·6183	—	—
12	$2{\cdot}1445\,x + {\cdot}84\,y = {\cdot}7660$	·1339	·5701	—	—
	Means	·1224	·5427	·1663	·5255

In May 1857, immediately before the "Advance" proceeded on her third voyage, an upwright bar of iron, about 8 feet long, 2½ inches wide, and 1 inch thick, was fixed at the back of the cabin, and before the compass, as shown in the sketch at page 17. There was no opportunity of testing beforehand what strength the bar should be. On trial, as the ship was passing from the dock into the river, with her head for a few moments at West, it was found much too weak for the purpose intended. The fore and aft magnets had to be shifted a little further from the compass. The effect of these alterations will be seen in the discussion of the observations made on the third voyage.

The cargo on the third outward voyage consisted in part of 330 tons of rod, hoop, and bar iron and machinery.

"Advance." Captain Dalison. 3d voyage, 1857–60.

No. of Observation.	Date.	Latitude.	Longitude.	Terrestrial Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ Earth's Hor. Force at Liverpool.	Steering Compass. Deviation towards Ship's heads.	Steering Compass. Force to Ship's head, &c.	Steering Compass. Deviation towards Ship's Starboard side.	Steering Compass. Force to Ship's Starboard side, &c.	Standard Compass. Deviation towards Ship's head.	Standard Compass. Force to Ship's head, &c.	Standard Compass. Deviation towards Ship's Starboard side.	Standard Compass. Force to Ship's Starboard side, &c.
							OUTWARD.							
1	1857. May 12	53 30 N.	3 0 W.	° ′ 70	2·75	1·0	0	—	0	—	—	—	—	—
2	June 3	36 28 N.	12 12 W.	62 30	1·9210	·76	2 16 / 3 20 better	·0523	—	—	−5 0	—	—	—
3	„ 17	9 41 N.	27 56 W.	—	—	·57	—	—	−2 30	—	About −2 30	—	4 0	—
4	July 10	28 9 S.	34 27 W.	− 4 30	·0787	·59	12 20	·2079	1 30	—	−4 30	—	8 45	—
5	„ 23	41 40 S.	1 12 W.	−47 30	1·0913	·71	17 30	·3007	—	—	—	—	—	—
6	„ 25	41 8 S.	6 0 E.	−51 0	1·2349	·74	22 31	·3830	—	—	—	—	—	—
7	„ 31	40 59 S.	23 27 E.	−57 40	1·5798	·78	27 36	·4633	—	—	—	—	—	—
8	Aug. 6	39 23 S.	35 37 E.	−61 0	1·8040	·82	43 0	·6820	—	—	—	—	About 6 20	—
9	„ 20	30 34 S.	81 39 E.	—	—	·72	—	—	About −5 0	—	—	—	About 1 0	—
10	„ 22	25 44 S.	82 5 E.	—	—	·69	—	—	−0 15	—	—	—	3 40	—
11	Sept 8	15 0 N.	84 8 E.	—	—	·45	—	—	−1 0	—	—	—	4 0	—
12	„ 9	18 31 N.	85 4 E.	17 30	·3153	·45	About 4 40	·0814	—	—	—	—	—	—
							CALCUTTA TO HONG KONG, &c.							
13	Oct. 31	17 31 N.	90 12 E.	16 0	·2867	·44	8 0	·1392	+4 0	—	−0 40	—	6 45	—
14	Nov. 21	0 49 N.	108 0 E.	—	—	·46	—	—	0 55	—	—	—	4 40	—
15	1858. Feb. 2	5 20 N.	105 54 E.	− 5 0	·0875	·45	10 12	·1771	—	—	About −2 48	—	—	—
16	April 15	15 43 N.	96 5 E.	—	—	·45	— Single observation	—	−0 15	—	—	—	4 15	—
17	May 14	4 52 N.	105 18 E.	− 5 0	·0875	·45	17 50	·3062	0 50	—	About −1 30	—	4 0	—
18	„ 27	19 13 N.	114 29 E.	—	—	·46	—	—	−0 40	—	—	—	4 20	—
19	1859. Feb. 6	9 13 N.	97 23 E.	—	—	·45	—	—	−3 8	—	—	—	4 8	—
20	Aug. 11	10 47 N.	94 37 E.	− 5 0	·0875	·45	11 0	·1908	—	—	—	—	—	—
21	Sept. 2	3 30 N.	85 35 E.	−12 0	·2126	·47	About 20 0	·3420	—	—	—	—	—	—
22	„ 8	0 40 S.	83 15 E.	—	—	·50	—	—	−3 7	—	—	—	—	—
23	„ 17	8 32 S.	76 13 E.	−35 0	·7002	·58	20 41	·3530	—	—	—	—	—	—
24	„ 19	8 52 S.	70 12 E.	−37 30	·7673	·6	21 40	·3692	—	—	—	—	—	—
25	„ 22	4 52 S.	64 35 E.	—	—	·58	—	—	−2 28	—	About −1 30	—	2 40	—
26	„ 23	3 15 S.	64 31 E.	−28 0	·5317	·57	About 18 0	·3090	−2 0	—	0	—	3 30	—
27	„ 24	1 46 S.	64 20 E.	—	—	·55	—	—	−5 0	—	—	—	1 40	—
28	„ 26	0 48 N.	66 13 E.	−20 0	·3640	·53	14 0	·2419	−3 37	—	−0 20	—	1 30	—
							FROM BOMBAY HOMEWARD.							
29	Dec. 15	4 4 N.	63 55 E.	−15 0	·2679	·52	14 0	·2419	—	—	−2 10	—	—	—
30	„ 30	8 17 S.	65 8 E.	−37 0	·7536	·61	About 19 30	·3338	—	—	—	—	2 0	—
31	1860. Jan. 2	9 35 S.	65 47 E.	−38 0	·7813	·61	Head W., 19 40 / Head E., 18 0	·3256	−3 0	—	Head W., −2 0 / Head E., −0 40	—	3 0	—
32	„ 13	19 12 S.	51 29 E.	−52 0	1·2799	·76	25 45	·4368	−2 16	—	0 8	—	4 0	—
33	„ 27	31 59 S.	34 4 E.	—	—	·81	—	—	—	—	−0 20	—	—	—
34	Feb. 28	1 19 S.	21 18 W.	—	—	·56	—	—	−6 0	—	—	—	0 35	—
35	April 4	38 23 N.	28 35 W.	67 15	2·3847	·9	9 10	·1593	1 5	—	−4 30	—	3 40	—

The last table affords the following equations for the steering compass.

Number of Observation.	Equations for the Steering Compass arranged in the order of the Earth's Magnetic Dip.	Values for x and y on Voyage outward.		Values for x and y in the East Indies.		Values for x and y on Voyage homeward.	
		x	y	x	y	x	y
1	$-2{\cdot}75\,x + y = 0$. (For combination with other equations for the outward voyage) - - - -	—	—	—	—	—	—
35	$-2{\cdot}3847\,x + {\cdot}9\,y = {\cdot}1593$. (For combination with other equations for observations in the East Indies and on the homeward voyage) - - -	—	—	—	—	—	—
2	$-1{\cdot}921\,x + {\cdot}76\,y = {\cdot}0523$ - -	·3095	·8511	—	—	—	—
12	$-{\cdot}3153\,x + {\cdot}45\,y = {\cdot}0814$ - -	·0883	·2428	—	—	—	—
13	$-{\cdot}2867\,x + {\cdot}44\,y = {\cdot}1392$ - -	·1508	·4177	—	—	—	—
15, 17, and 20.	$+{\cdot}45\,y = {\cdot}2162$ - -	—	—	·1145	·4804	—	—
4	$+{\cdot}0787\,x + {\cdot}59\,y = {\cdot}2079$ - -	·1222	·3361	—	—	—	—
21	$+{\cdot}2126\,x + {\cdot}47\,y = {\cdot}3420$ - -	—	—	·1775	·6473	—	—
29	$+{\cdot}2679\,x + {\cdot}52\,y = {\cdot}2419$ - -	—	—	—	—	·0911	·4183
28	$+{\cdot}3640\,x + {\cdot}53\,y = {\cdot}2419$ - -	—	—	·0837	·3989	—	—
26	$+{\cdot}5317\,x + {\cdot}57\,y = {\cdot}3090$ - -	—	—	·1019	·4469	—	—
23 and 24	$+{\cdot}7338\,x + {\cdot}59\,y = {\cdot}3611$ - -	—	—	·1117	·4743	—	—
30 and 31	$+{\cdot}7675\,x + {\cdot}61\,y = {\cdot}3297$ - -	—	—	—	—	·0930	·4235
5	$1{\cdot}0913\,x + {\cdot}71\,y = {\cdot}3007$ - -	·1471	·4045	—	—	—	—
6	$1{\cdot}2349\,x + {\cdot}74\,y = {\cdot}3830$ - -	·1171	·3221	—	—	—	—
32	$1{\cdot}2799\,x + {\cdot}76\,y = {\cdot}4368$ - -	—	—	—	—	·0918	·4245
7	$1{\cdot}5798\,x + {\cdot}78\,y = {\cdot}4633$ - -	·1244	·3421	—	—	—	—
8	$1{\cdot}8040\,x + {\cdot}82\,y = {\cdot}6820$ - -	·1705	·4689	—	—	—	—
	Means - - -	·1537	·4232	·1179	·4895	·0920	·4221

The mean values for the three voyages will be respectively, for x, $-{\cdot}2041$, $-{\cdot}1443$, $-{\cdot}1212$, and for y, ·5628, ·5341, ·4449, The difference between the mean values on the 2d and 3d voyages, both for x and y, correspond very well together, and with the known effect of the bar which was introduced before the steering compass after the 2d voyage.

On the return of the "Advance" to Liverpool after her third voyage she lay in dock with her head to the north, so that there was no opportunity of obtaining the fore and aft error of this compass; but the fore and aft magnets were taken on shore, and placed in the same relative position as when on board with a trial compass, when they were found to produce an error of 10°. As the north end of these magnets was towards the ship's stern they would assist in producing the observed y; the ship's permanent magnetism to the head will therefore be ${\cdot}4449 - {\cdot}1736 = {\cdot}2713$, or sufficient to produce at Liverpool a deviation of 15°·45′.

On the supposition that when the fore and aft magnets were in place there was no error in Liverpool with ship's head East or West, x or the coefficient for vertical induction will be ·1618, which is much greater than the mean values obtained on the last two voyages. If ·1212 the mean value for the third voyage be accepted, there would be on the ship's return to Liverpool an error represented by $-2{\cdot}75 \times {\cdot}1212 + {\cdot}4449 = {\cdot}1116$, which is equal to a deviation towards the ship's head of 6°·25′. A mean between these two extreme suppositions, or $-{\cdot}1367$ for the coefficient for vertical induction, and ·2713 for the permanent magnetism towards the ship's head, will, it is thought, be a very close approximation to the magnetic elements of this ship for the station of the steering compass.

There seems little doubt that a vertical bar of soft iron introduced before this compass, so as to produce at Liverpool a deviation towards the ship's head of 15°·45′, and a permanent magnet placed on the deck with the North pole towards the bow so as to neutralize the deviation caused by the bar, would satisfactorily correct this compass for all latitudes.*

This discussion does not afford any satisfactory data for expressing an opinion on the effect of the iron carried as cargo on each of the outward voyages.

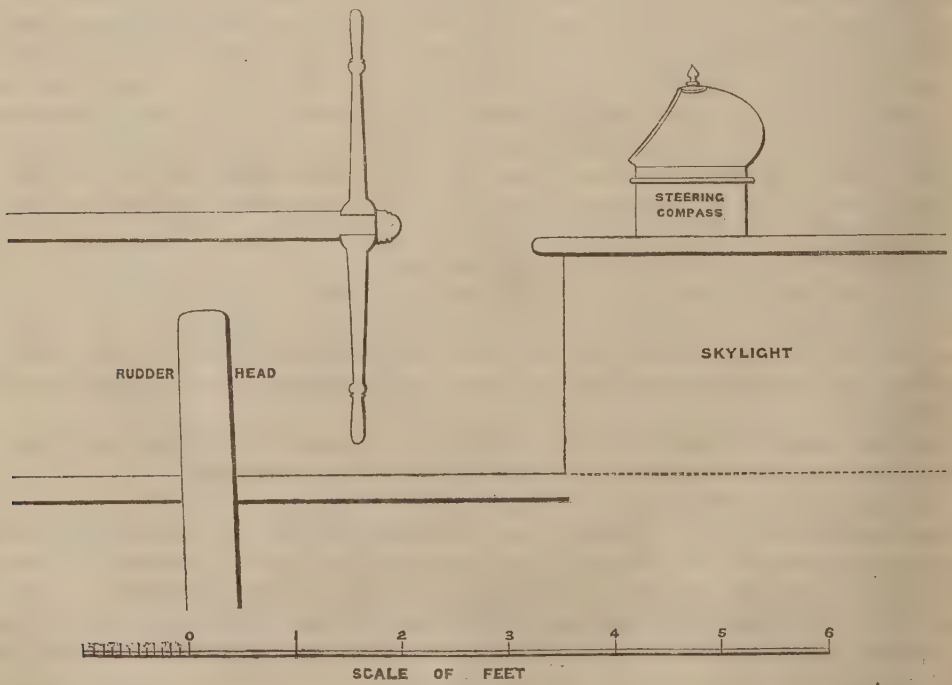
The sea errors of the standard compass of the "Advance" on the second and third voyages were so small as scarcely to require any attempt at artificial correction. A transverse magnet with its North end to starboard, sufficient to produce at Liverpool a deviation of 7°, would certainly be sufficient for all practical purposes. The residual errors and the errors from heeling would then be too small to give the navigator any anxiety, when unable for a day or two to make any observations for the correction of the compass.

* See some further particulars respecting this compass, with letter from Captain Dalison, in the Appendix, showing effect of the short iron bar marked *a* in the sketch at page 17.

"Astræa." Captain S. Nickels.

The "Astræa" is a three-masted schooner of about 400 tons, and was built on the Clyde with her head to the West of South in the spring of 1856. Her first voyage was to the West Indies (see Second Report of the Compass Committee); since then she has made several voyages to the Island of Mauritius and to Calcutta. Captain Nickels, at the request of the Committee, has repeatedly swung his ship at sea, and the details he has furnished (most of which are given in the Appendix) present one of the most complete records which have yet been received of the changes which occur in the magnetism of iron ships. This vessel is a good type of iron ships built in this country with their head in a southerly direction. Her steering compass is placed over the cabin skylight, as shown in the accompanying sketch. According to the deviation table given by the compass adjuster before leaving the Clyde, the steering compass had a deviation of $2\frac{1}{2}^{\circ}$ West when ship's head was East, and no error with her head at West. The attraction to port was rather over compensated by a transverse magnet, the table showing no error with ship's head North, and with ship's head South a deviation of 4° West. As the deviations on the card are all westerly, there is evidently an index error of some sort. After allowing for this, the resultant attraction to starboard may be taken as 1°. When examined in Liverpool after her return from the West Indies, it was about $15\frac{1}{2}^{\circ}$, showing a considerable reduction in the ship's magnetism. On removing the transverse magnet, the attraction to starboard was $-8\frac{1}{2}^{\circ}$. Supposing the magnet to have retained its power, the original attraction to starboard will be represented by a deviation of about −23°. There was also found an attraction towards the head of $-8\frac{1}{2}^{\circ}$, indicating a reduction of the same extent in the ship's fore and aft magnetism. On her return to Liverpool from the Mauritius, the deviation towards the bow had increased to 11°. The deviations of this compass rapidly increased as the ship went South, especially when her head was East or West; and the Captain observing that the magnet caused an increase of deviation on some other courses, removed it from the compass altogether. Besides the steering compass, there was a standard compass placed near the mizen mast, but it does not appear to have acted well. The deviations of the standard compass are reported to have been frequently of the opposite name to those of the steering compass, so that in the southern hemisphere there was sometimes a difference of several points between them; thus on 11th October a difference of $8\frac{1}{2}$ points is recorded, and on the 18th of the same month, in Lat. 40 S. and Long. 33 E., a difference of 10 points.

"Astræa."



Observations made in Lat. 24° 32′ S. Long. 28° 42′ W., and in Lat. 37° 32′ S. Long. 12° 30′ W., afford, in conjunction with an observation made at Liverpool, the following equations for estimating pretty approximately the elements of this ship's fore

and aft magnetism on the first southern voyage, at the station of the steering compass, in terms of earth's force at Liverpool:—

$$\begin{aligned} -2{\cdot}75\ x + \ y &= -{\cdot}1908 \\ {\cdot}3153\ x + {\cdot}6\ y &= {\cdot}3746 \text{ or } x = {\cdot}2488,\ y = {\cdot}4934 \\ {\cdot}7813\ x + {\cdot}65\ y &= {\cdot}5050 \quad x = {\cdot}2448,\ y = {\cdot}4824 \end{aligned}$$

or a mean $x = {\cdot}2468$ and a mean $y = {\cdot}4879$; x representing, as before, the coefficient for vertical induction, and y the ship's permanent magnetism.

These forces in Lat. 40 S. Long. 40 E. would give an attraction towards the head equal to ·8695 of the earth's horizontal force, or a maximum deviation of 60°·24′, which quite confirms the extreme deviations which Captain Nickels has recorded for this compass, as well as the assertions which have been so frequently made by the commanders of other iron ships, namely, that in certain places and positions of the ship their steering compass has been found to be entirely destitute of directive power. This would of course occur when the ship's force and earth's force were nearly the same, and acting in opposite directions.

The following table is obtained from the second voyage to the Mauritius and the first to Calcutta. (See Appendix M.)

STEERING COMPASS OF THE "ASTRÆA." Captain S. Nickels, 1857, 1858, 1859.

No. of Observation.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ Earth's Hor. Force at Liverpool.	Deviation towards Ship's Head.	Force towards Ship's Head in Terms of Earth's Hor. Force at each Station.	Deviation to Ship's Starboard Side.	Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Station.
				OUTWARD VOYAGE TO MAURITIUS.					
	° ′	° ′	° ′			° ′		° ′	
1	30 42 N.	18 17 W.	60 0	1·7321	·72	1·0	·0175	−8·15	−·1435
2	19 46 N.	24 11 W.	50 30	1·2131	·615	4·10	·0727	−6·44	−·1172
3	3 36 N.	16 23 W.	30 0	·5774	·55	9·26	·1639	—	—
4	28 8 S.	24 50 W.	−24 0	·4452	·62	About 18·40	·3201	—	—
5	34 0 S.	2 45 E.	−44 0	·9657	·715	About 25·0	·4226	—	—
6	38 47 S.	22 16 E.	−56 30	1·5108	·79	41·30	·6626	—	—
7	38 51 S.	40 0 E.	−59 0	1·6643	·835	45·30	·7133	—	—
8	23 13 S.	59 9 E.	−56 30	1·5108	·78	—	—	−5·24	−·0941
				HOMEWARD VOYAGE.					
9	22 32 S.	55 7 E.	−55 0	1·4281	·78	36·0	·5878	—	—
10	17 27 S.	5 24 W.	−30 30	·5890	·62	About 18·0	·3090	—	—
11	15 42 S.	7 27 W.	−13 0	·2309	·6	—	—	−6·30	−·1132
12	2 26 S.	27 9 W.	20 0	·3640	·54	—	—	−7·6	−·1236
13	15 30 N.	39 35 W.	46 30	1·0538	.59	6·32	·1138	—	—
				OUTWARD VOYAGE TO CALCUTTA.					
14	45 0 N.	12 45 W.	67 20	2·3945	·9	−4·15	−·0741	−8·38	−·1501
15	9 19 S.	32 7 W.	10 0	·1763	·555	8·30	·1478	−4·28	−·0779
16	15 52 S.	32 52 W.	0	0	·554	11·45	·2036	—	—
17	27 12 S.	30 22 W.	−21 0	·3839	·6	About 14·30	·2504	+1.0	·0175
18	2 5 S.	83 36 W.	−22 0	·4040	·51	About 14·30	·2504	—	—
				HOMEWARD VOYAGE.					
19	18 58 S.	57 26 E.	−53 0	1·3270	·75	30·30	·5075	—	—
20	31 45 S.	30 36 E.	−56 0	1·4826	·81	37·20	·6065	—	—

The change in the deviation to starboard may be attributed chiefly to change in earth's horizontal force, except No. 17, which does not accord with the others, and perhaps is caused by heeling. The transverse magnetism of the ship appears to be

almost wholly permanent. The following are the equations for the "Astræa's" fore and aft magnetic elements, arranged in the order of the earth's dip.

No. of Observation.	Equations.	Mauritius Voyage.				Calcutta Voyage.			
		Outward.		Homeward.		Outward.		Homeward.	
		x	y	x	y	x	y	x	y
14	$-2{\cdot}3945\,x + {\cdot}9\,y = -{\cdot}0741$	—	—	—	—	1·2127	3·1441	—	—
1	$-1{\cdot}7321\,x + {\cdot}72\,y = {\cdot}0175$	·6247	1·53	—	—	—	—	—	—
2	$-1{\cdot}2131\,x + {\cdot}615\,y = {\cdot}0727$	·3972	·9014	—	—	—	—	—	—
13	$-1{\cdot}0538\,x + {\cdot}59\,y = {\cdot}1138$	—	—	·3982	·9042	—	—	—	—
3	$-{\cdot}5774\,x + {\cdot}55\,y = {\cdot}1639$	·2875	·5988	—	—	—	—	—	—
15	$-{\cdot}1763\,x + {\cdot}555\,y = {\cdot}1478$	—	—	—	—	·1879	·3261	—	—
16	$\quad {\cdot}554\,y = {\cdot}2036$	—	—	—	—	·2030	·3675	—	—
17	${\cdot}3839\,x + {\cdot}6\,y = $ (about) ${\cdot}2504$	—	—	—	—	·1794	·3026	—	—
18	${\cdot}4040\,x + {\cdot}51\,y = $ (about) ${\cdot}2504$	—	—	—	—	·1924	·3384	—	—
4	${\cdot}4452\,x + {\cdot}62\,y = $ (about) ${\cdot}3201$	·2039	·3699	—	—	—	—	—	—
10	${\cdot}5890\,x + {\cdot}62\,y = $ (about) ${\cdot}3090$	—	—	·1862	·3213	—	—	—	—
5	${\cdot}9657\,x + {\cdot}715\,y = $ (about) ${\cdot}4226$	·1906	·3334	—	—	—	—	—	—
19	$1{\cdot}3270\,x + {\cdot}75\,y = {\cdot}5075$	—	—	—	—	—	—	·1919	·3369
9	$1{\cdot}4281\,x + {\cdot}78\,y = {\cdot}5878$	—	—	·2061	·3760	—	—	—	—
20	$1{\cdot}4826\,x + {\cdot}81\,y = {\cdot}6065$	—	—	—	—	—	—	·2051	·3732
6	$1{\cdot}5108\,x + {\cdot}79\,y = {\cdot}6626$	·2208	·4264	—	—	—	—	—	—
7	$1{\cdot}6643\,x + {\cdot}835\,y = {\cdot}7133$	·2204	·4153	—	—	—	—	—	—
	$-2{\cdot}75\,x + y = -{\cdot}1908$. The last equation has been used in combination with all the others.								
	Means	·3064	·6536	·2635	·5338	·3951	·8957	·1985	·3551
	Means of the observations lying below No. 3. and above No. 6.	·1973	·3517	·1962	·3487	·1907	·3336	·1985	·3551

It is evident from this and the preceding tables that a portion of the ship's changing magnetism does not change immediately on change of magnetic latitude, or that a portion of the magnetism treated as permanent is only so under certain conditions. The fluctuations in the value of the more permanent part of the magnetism of the "Advance" is smaller than in the "Astræa," even when, in the latter ship, only the observations made in the southern hemisphere are compared with those made in Liverpool; but in both cases the fluctuations are within limits which make compensation by fixed magnets and an ordinary bar of vertical iron in all probability practically efficient. If the vertical bar proposed to be placed before the compass descended to the keel, and formed part of the structure of the ship, it seems pretty certain that the changes in its magnetism would correspond so closely with the changes occurring in the sternpost and other iron aft of the steering compass, that the fluctuations alluded to would altogether disappear.

As there are reasons for supposing that these fluctuations attain their maximum in ships built head to the South, the following table has been prepared, to afford a comparison between the observed deviations of the steering compass of the "Astræa" and the calculated deviations which would be produced by a bar of perfectly soft iron and a fixed permanent magnet. The table is prepared for three values of x and y. First from values obtained from the five equations, Nos. 15, 16, 17, 18, and 4, in conjunction with the five equations, Nos. 10, 5, 19, 9, and 20, which include outward and homeward observations for both voyages, and give $x = {\cdot}207$ $y = {\cdot}3359$; next, for the values of x and y, observed on the magnetic equator and Liverpool; and lastly, for $x = {\cdot}2$ $y = {\cdot}4$ of earth's horizontal force at Liverpool. It will be seen that the greatest difference in the last two columns between the observed and the calculated deviations in only one instance is so much as half a point of the compass, the range of error being within 3° 56′ and — 5° 40′, while, without compensation, the fore and aft magnetic error is so much as four points, and the range of error five points.

No. of Observation.	Dip.	Observed Deviation.	$x = -\cdot207$. $y = \cdot3359$.			$x = -\cdot203$. $y = \cdot3675$.			$x = -2$. $y = \cdot4$.		
			Calculated Deviation.	Difference.		Calculated Deviation.	Difference.		Calculated Deviation.	Difference.	
				Outward Voyages.	Homeward Voyages.		Outward Voyages.	Homeward Voyages.		Outward Voyages.	Homeward Voyages.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
At Liverpool	70 0	−11 0	−13 30	−2 30	—	−11 0	0 0	—	− 8 41	2 19	—
14	67 20	− 4 15	−11 9	−6 54	—	− 8 56	−4 41	—	− 6 50	−2 35	—
1	60 0	1 0	− 6 42	−7 42	—	− 5 02	−6 2	—	− 3 21	−4 21	—
2	50 30	4 10	− 2 33	−6 43	—	− 1 10	−5 20	—	0 12	−3 58	—
13	46 30	6 32	− 1 9	—	−7 41	0 10	—	−6 22	0 52	—	−5 40
3	30 0	9 26	3 44	−5 42	—	4 52	−4 34	—	6 0	−3 26	—
15	10 0	8 30	8 37	0 7	—	9 41	1 11	—	10 46	2 16	—
16	0 0	11 45	10 43	−1 2	—	11 45	0 0	—	12 49	1 4	—
17	−21 0	14 30	16 9	1 39	—	17 22	2 52	—	18 28	3 58	—
18	−22 0	14 30	14 46	0 16	—	15 38	1 8	—	16 33	2 3	—
4	−24 0	18 40	17 31	−1 9	—	18 37	−0 3	—	19 42	1 2	—
10	−30 30	18 0	19 17	—	1 17	20 20	—	2 20	21 27	—	3 27
5	−44 0	25 0	26 7	1 6	—	27 44	2 44	—	28 30	3 30	—
19	−53 0	30 30	31 47	—	1 17	33 2	—	2 32	34 26	—	3 56
9	−55 0	36 0	33 53	—	−2 7	35 25	—	−0 35	36 42	—	0 42
20	−56 0	37 20	35 23	—	−1 57	36 46	—	−0 34	38 21	—	1 1
6	−56 30	41 30	34 37	−6 53	—	36 40	−4 50	—	38 10	−3 20	—
7	−59 0	45 30	38 41	−6 49	—	39 42	−5 48	—	41 49	−3 49	—

As before remarked, this table is constructed on the supposition that the compensating bar is of perfectly soft iron, and the compensating magnet quite permanent. In practice, the compensation would probably be more perfect than would be possible with these conditions. In the case of the "Astræa," compensation might be effected at Liverpool in this way:—Place a fore-and-aft magnet so as to increase the attraction towards the stern by ·36 of the earth's horizontal force at Liverpool; then place a vertical bar of iron of suitable size (the size might vary according to circumstances, say from 8 feet long by 2 inches in diameter to 4 feet long by 3 inches in diameter), and prepared so as to be free from retained magnetism, and with the end most susceptible to northern induction upwards; the upper end of the bar should be an inch or two above the level of the compass card, and at such a distance as to compensate all error, with the ship's head at East or West correct magnetic; on hammering the bar throughout its length, it would probably acquire enough magnetism to produce a deviation towards the bow of 6°; remove the bar a little further forward, so as to reduce this deviation to 3°, and permanently secure the bar in that position; then permanently secure the fore-and-aft magnet a little nearer to the compass, so as to compensate the remaining deviation of 3°, and this adjustment would be complete.

A modification of the compensation which has now been suggested was successfully introduced into the ship to which attention is next directed.

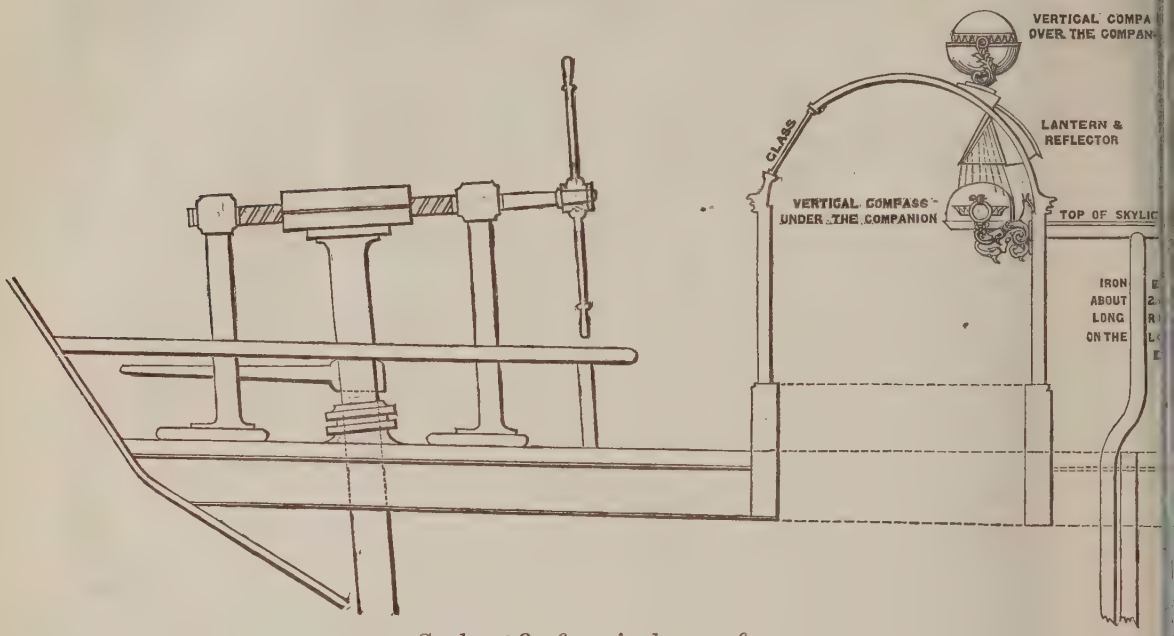
"Aphrodita." Captain Hugh Stewart.

This ship has already been noticed in treating of the effect of heeling on the compasses of iron ships. She is of 1,601 tons register, and more than 2,000 tons burthen. About 1,000 tons of iron were employed in her construction. The compass log for this ship during her first voyage to Calcutta and back is given in the Appendix. The standard compass is a very superior instrument, similar to those supplied to the Admiralty; and Captain Stewart states that he has only given those observations which he thought most worthy of dependence. A sketch is annexed to show the position of the steering compasses with respect to the wheel and the compensating bar.* The Admiralty compass

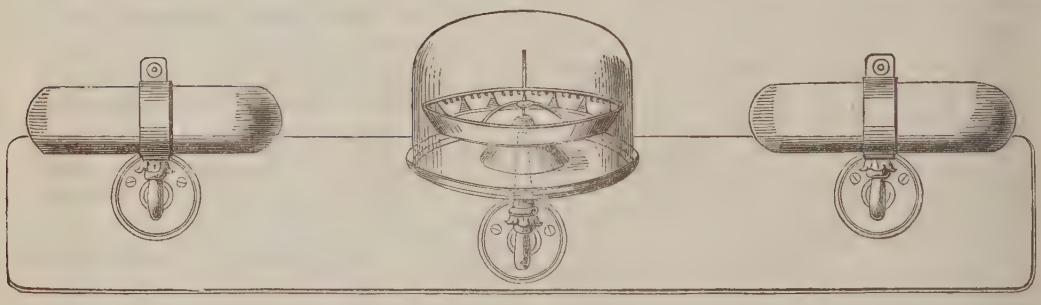
* Ordinary compass cards could not have been used in the positions selected for the steering compasses of this ship. Vertical compasses were therefore employed. In these the card is usually represented by a thin steel hoop on which the points of the compass are painted. Very great care is required in selecting compasses of this kind, as they frequently have a large index error. On one occasion the Secretary found on board an iron ship, about to go to sea with emigrants, two of these compasses which differed from each other so much as 18½°. On taking them on shore to be tested, one was found to have a − index error of 5°, and the other a + error of 13½°.

is fixed about thirteen feet above the deck, between the mizen and main masts. The lower masts and the yards of this vessel are all made of iron or steel.

"Aphrodita."

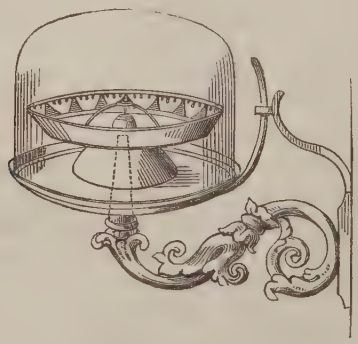


Scale ·36 of an inch to a foot.



Scale
1½-inch
to a fo

Compass under the Companion as seen from the Wheel
showing the cast-iron correctors for quadrantal deviation.



Side view of Vertical
Compass under the Companion.

As this ship was not partially swung at intervals while at sea, like the "Advance" and the "Astræa," there are not the same facilities for ascertaining the deviations on the cardinal points. The following table has in consequence been arranged differently to those which preceded it. Observations made near the cardinal points are selected,

and the difference columns show the difference between these and the observations made in Liverpool with the ship's head in the same direction.

"Aphrodita," Captain Hugh Stewart. First voyage from Liverpool to Calcutta and back.

No.	Latitude.	Longitude.	Magnetic Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ Earth's Hor. Force at Liverpool.	Heel, P. Port, S. Starboard.	Ship's Head correct Magnetic.	Standard Compass.		Compass under the Companion.		Compass over the Companion.	
								Approx. Change in the Deviation towards Ship's Head.	Approx. Change in the Deviation towards Ship's Starboard Side.	Approx. Change in the Deviation towards Ship's Head.	Approx. Change in the Deviation towards Ship's Starboard Side.	Approx. Change in the Deviation towards Ship's Head.	Approx. Change in the Deviation towards Ship's Starboard Side.
								OUTWARD VOYAGE.					
	° ′	° ′	° ′			°	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	16 50 S.	25 34 W.	− 3 0	·0524	·58	1 S.	S. 12 30 E.	—	2 30	—	4 30	—	3 30
2	23 37 S.	25 17 W.	−13 0	·2309	·60	0	S. 76 30 W.	8 15	—	3 15	—	16 15	—
3	36 34 S.	57 50 E.	−64 0	2·0503	·83	0	N. 82 0 E.	1 0	—	4 0	—	16 0	—
4	19 46 S.	77 1 E.	−53 0	1·3270	·68	6 P.	N. 9 0 W.	—	8 45	—	0 15	—	4 45
5	20 50 N.	88 32 E.	22 0	·4040	·45	3 P.	W. 5 0 N.	3 30	—	5 0	—	3 0	—
6	21 8 N.	88 9 E.	22 0	·4040	·45	0	N. 8 0 E.	—	9 30	—	2 15	—	1 0
								HOMEWARD VOYAGE.					
7	16 52 N.	89 51 E.	14 30	·2586	·44	7 S.	S. 3 0 E.	—	10 40	—	6 0	—	6 45
8	13 56 N.	89 52 E.	12 0	·2126	·45	3 S.	S. 4 45 W.	—	10 15	—	6 25	—	6 0
9	8 36 S.	88 53 E.	−34 0	·6745	·53	10 P.	S. 1 20 E.	—	12 0	—	7 20	—	7 50
10	29 0 S.	56 8 E.	−60 0	1·7321	·82	0	S. 85 30 W.	0 45	—	5 45	—	15 15	—
11	30 36 S.	45 35 E.	−58 30	1·6319	·83	0	N. 83 0 W.	2 0	—	5 50	—	18 45	—
12	31 11 S.	43 41 E.	−58 30	1·6319	·83	14 S.	N. 83 30 W.	2 30	—	5 20	—	20 15	—
13	32 36 S.	31 21 E.	−57 0	1·5399	·81	15 S.	S. 80 15 W.	0 45	—	5 25	—	19 0	—
14	21 3 S.	0 43 E.	−28 0	·5317	·65	0	N. 8 15 W.	—	14 0	—	6 40	—	7 20
15	14 13 N.	29 32 W.	46 30	1·0538	·59	18 P.	N. 4 5 W.	—	9 50	—	9 20	—	10 40
16	18 17 N.	32 38 W.	51 0	1·2349	·61	18 P.	N. 1 45 W.	—	7 55	—	12 50	—	12 0
17	19 44 N.	33 20 W.	53 0	1·3270	·62	16 P.	N. 1 55 W.	—	8 5	—	8 40	—	8 50
18	25 50 N.	35 56 W.	59 0	1·6643	·70	12 P.	N. 0 15 E.	—	5 55	—	13 30	—	12 0
19	27 11 N.	36 34 W.	60 30	1·7675	·73	14 P.	N. 4 45 E.	—	1 40	—	13 40	—	16 0
20	45 31 N.	24 16 W.	70 0	2·7475	1·03	8 S.	N. 89 45 E.	3 30	—	10 10	—	0 30	—
21	51 22 N.	8 29 W.	70 0	2·7475	1·00	0	S. 87 15 E.	7 30	—	0 15	—	8 30	—

At Liverpool at the station of the standard compass the deviation to ship's head was $-9° 35'$, and to starboard side $+ 17° 32'$.

Observations Nos. 3 and 10 and 11 afford suitable equations for comparison with those representing the ship's fore-and-aft magnetic force at Liverpool at the stations of each of the three compasses.

For the standard compass they are :—

For Liverpool $-2{\cdot}75\ x + \quad y = {\cdot}1665$

„ Obsⁿ 3, $2{\cdot}0503\ x + {\cdot}83\ y = {\cdot}1837$, or $x = {\cdot}0105$, $y = {\cdot}1954$

„ Obsⁿˢ 10 & 11, $1{\cdot}682\ x + {\cdot}825\ y = {\cdot}1902$, or $x = {\cdot}0134$, $y = {\cdot}2032$,

or a mean $x = {\cdot}012$ and a mean $y = {\cdot}1993$

For the compass under the companion they are :—

For Liverpool $-2{\cdot}75\ x + \quad y = -{\cdot}0442$

„ Obsⁿ 3 $2{\cdot}0503\ x + {\cdot}83\ y = {\cdot}1132$, or $x = {\cdot}0346$, $y = {\cdot}0509$

„ Obsⁿˢ 10 & 11 $1{\cdot}682\ x + {\cdot}825\ y = {\cdot}0727$, or $x = {\cdot}0276$, $y = {\cdot}0319$,

or a mean $x = {\cdot}0311$ and a mean $y = {\cdot}0414$.

For the compass placed over the companion they are :—

For Liverpool $-2{\cdot}75\ x + \quad y = -{\cdot}0958$

„ Obsⁿ 3, $2{\cdot}053\ x + {\cdot}83\ y = {\cdot}1908$, or $x = {\cdot}0624$, $y = {\cdot}0757$

„ Obsⁿˢ 10 & 11 $1{\cdot}682\ x + {\cdot}825\ y = {\cdot}2079$, or $x = {\cdot}0726$, $y = {\cdot}1039$,

or a mean $x = {\cdot}0675$ and a mean $y = {\cdot}0898$

The values obtained for the compass under the companion show that the compensation is very nearly perfect, and that it would probably be quite so for all latitudes if the magnet were placed an inch or so further from the compass, and the upright bar were placed about two inches nearer. The "Aphrodita" has since made a second voyage to Calcutta, and the captain, in a letter to the owners, states, that in running down her easting in the southern hemisphere this compass has never been more than half a point in error.

The elements of this ship's fore and aft magnetism at the station of the standard compass does not differ much in quantity from those of the screw steam transports "Assistance" and "Adventure," which were also built at Liverpool, in as nearly as possible the same direction as the "Aphrodita." The difference in sign is no doubt due to the standard compasses of the two steamers being placed very much nearer to the stern than the standard of the "Aphrodita."

The following equations are obtained from deviation tables for these vessels, which were furnished to the Committee by Mr. F. J. Evans of the Admiralty Compass Department. Both ships were swung at Portsmouth in May 1857, and again in Canton River in the spring of 1858.

The "Assistance" at Portsmouth gives,—

$$-2\cdot4751\,x + \quad y = \quad -\cdot1619;$$

And near Canton,—

$$-\cdot5774\,x + \cdot47\,y = \quad -\cdot0704, \quad \text{or } x = \cdot0097,\ y = \quad -\cdot1379.$$

The "Adventure" at Portsmouth gives,—

$$-2\cdot4751\,x + \quad y = \quad -\cdot1691;$$

And near Canton,—

$$\cdot5774\,x + \quad y = \quad -\cdot07005, \text{ or } x = \cdot0161,\ y = \quad -\cdot1293.$$

These results are very similar, and show great permanency in the magnetism of both ships. The transverse magnetism of these ships was also similarly permanent, so that the difference in the tables for Portsmouth and Canton is almost entirely due to the difference in the earth's directive power at the two places.

Observations made on board the Turkish iron paddle-wheel steam frigate "Feid Gehadd" show a similar degree of permanency in the fore and aft magnetism of this ship at the station selected for the standard compass, which is immediately before the mizen mast, and about seven feet above the deck. The equations are,—

For Alexandria $\quad -\cdot7265\,x + \cdot53\,y = \quad -\cdot1161.$

For Liverpool $\quad -2\cdot75 \quad x + \quad y = \quad -\cdot1994$ or $x = \cdot0143,\ y = \quad -\cdot2387.$

The next ship to which attention is directed is also a screw steamer, and is the only merchant steamer for which returns suitable for the present part of the inquiry have been obtained. It is a subject of surprise as well as regret to the Committee to have to make this announcement. Among so many intelligent captains of iron steamers as sail from the Port of Liverpool, it might be reasonably supposed that several would have been ready to furnish the Committee with tables of deviation obtained at Malta or Alexandria, at New York, Portland, or the St. Lawrence, for comparison with the deviations observed in the Mersey. But, so far as the Committee are aware, such tables do not exist. The information these tables would give might be expected to be as serviceable in the navigation of the ship as they would be interesting to the Committee. It might be supposed too that to swing an iron ship before leaving a distant port, when she has to pass rocks and headlands where fogs are at times prevalent, would be necessary for any navigation which did not deserve Dr. Scoresby's designation of an "inverse process;" but this cannot be the case, as with the exception of an occasional mishap, the navigation of our iron steamers must be considered eminently successful. Unnecessary detention in port or loss of time on the voyage cannot be urged as the reason, as in a steamer, under favourable circumstances, the requisite observations could be made in an hour or even in half that time.

S. S. "Bœotia," Captain Haram.

This vessel was swung by Captain Haram at Malta in July 1857, and the observations then made, with the deviation tables furnished to her on the 12th of the same month, before leaving Liverpool, afford the following equations for this ship's fore-and-aft magnetism:—

Steering compass in the usual position:

At Liverpool $\quad -2\cdot75 \quad x + \quad y = \quad -\cdot4067.$

At Malta $\quad -1\cdot2799\,x + \cdot63\,y = \quad -\cdot1994$, or $x = \cdot1255,\ y = \quad -\cdot0615.$

Mast compass, about 16 feet above the deck on the front of the mizenmast:

At Liverpool $\quad -2\cdot75 \quad x + \quad y = \quad \cdot0262.$

At Malta $\quad -1\cdot2799\,x + \cdot63\,y = \quad \cdot0895$, or $x = \cdot1614,\ y = \quad \cdot4698.$

Fore compass in fore part of forward deck-house, about 6 feet 6 inches above the deck:

At Liverpool $\quad -2\cdot75 \quad x + \quad y = \quad \cdot0198$

At Malta $\quad -1\cdot2799\,x + \cdot63\,y = \quad \cdot1045$, or $x = \cdot2033,\ y = \quad \cdot5789.$

On the return of this ship to Liverpool, and in consequence of the change in the deviations reported by Captain Haram, a vertical iron bar was introduced before the steering compass, sufficiently near to compensate about two thirds of the inductive magnetism of iron aft of the compass, the remaining polar deviation being compensated in the usual manner. The quadrantal error, which averaged about 8° on the four-point courses, was, as nearly as possible, corrected by two cast-iron cylinders with rounded ends, each being 12 inches long by rather more than 3 inches in diameter. After this the steering compass acted so much better than before that from that time (1857) to the present it is believed no alteration of any kind has been made or required.

"Simla." Captain W. Williams.

This ship is of 1,444 tons register, and has already been referred to in this Report, when treating of the effect of heeling on the compasses of iron ships. In the Appendix are inserted numerous extracts from the log kept by Captain Williams during the first voyage of this ship to Calcutta and back; also many interesting notes which he made on the second outward voyage to the same port, when there were on board upwards of 2,000 tons of iron in the form of machinery, railway plant, &c.

The following selections have been made as suitable for comparison with the records which have been taken from the other logs:—

"Simla." Captain Williams. First voyage outwards to Calcutta.

No. of Observation.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. Force at Station ÷ by Earth's Hor. Force at Liverpool.	Steering Compass.				Standard Compass.			
						Deviation towards Ship's Head.	Force to Ship's Head in Terms of Earth's Hor. Force at each Station.	Deviation towards Ship's Starboard Side.	Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Station.	Deviation towards Ship's Head.	Force to Ship's Head in Terms of Earth's Hor. Force at each Station.	Deviation towards Ship's Starboard Side.	Force to Ship's Starboard Side in Terms of Earth's Hor. Force at each Station.
	° ′	° ′	° ′			° ′		° ′		° ′		° ′	
1	At Liverpool (before compensation.)		70 0	2·75	1·00	−12 48	−·2215	−29 0	—	2 35	—	−14 48	—
	Do. Do. (after compensation).					Probably 0 0		Probably 0 0					
2	13 0 N.	28 0 W.	45 0	1·00	·59	—	—	—	—	About 0 0	—	− 8)	—
3	5 45 N.	30 44 W.	35 0	·7002	·555	—	—	—	—	0 0	—	− 7 20	—
4	0 0	31 0 W.	25 0	·4663	·55	—	—	—	—	Appears —	—	− 7 20	—
5	28 0 S.	29 0 W.	−22 0	·4040	·6	11 0	·1908	− 0 30	—	—	—	− 7 20	—
6	35 3 S.	82 17 E.	−65 30	2·1943	·74	16 30	·2841	− 5 0	—	—	—	—	—
7	0 31 S.	92 40 E.	−17 30	·3153	·485	− 5 0	—	− 1 15	—	−1 0	—	− 3 45	—
	FROM CALCUTTA TO DEMERARA.												
8	3 24 N.	86 13 E.	−11 0	·1944	·48	—	—	—	—	1 35	—	− 5 30	—
9	29 12 S.	39 11 E.	−57 0	1·5399	·82	—	—	—	—	—	—	−10 0	—
10	20 20 S.	0 29 W.	−27 30	·5206	·65	—	—	—	—	—	—	− 8 56	—
11	14 23 S.	8 42 W.	−11 0	·1944	·59	—	—	—	—	—	—	− 9 52	—
12	0 30 S.	41 10 W.	27 30	·5206	·53	—	—	—	—	1 0	—	−10 0	—
13	7 6 N.	52 50 W.	38 0	·7813	·53	—	—	—	—	2 15	—	—	—
	DEMERARA TO LIVERPOOL.												
14	47 21 N.	22 3 W.	70 30	2·8239	1·06	—	—	—	—	−1 0	—	− 6 30	—
	LIVERPOOL TOWARDS CALCUTTA, 2nd VOYAGE.												
15	50 4 N.	8 28 W.	69 15	2·6395	·98	− 8 0	−·1392	− 5 53	—	−0 11	—	−11 50	—
16	29 19 S.	27 7 W.	−25 0	·4663	·61	—	—	—	—	+1 38	—	− 6 15	—
17	32 20 S.	76 15 E.	−63 0	1·9626	·75	+ 7 0	·1219	—	—	1 38	—	− 6 15	—
18	3 10 N.	83 32 E.	−12 30	·2217	·48	+ 1 30	·0262	− 0 30	—	−0 12	—	− 2 10	—

On the first outward voyage, in latitude 35° S., the deviations of the steering compass were observed by comparison with the standard compass, which was then found to have only very small error. The attraction of 16° 30′ to the bow is very probably correct, but the deviation of −5° to starboard is too small by the amount of deviation due at this time to the standard. On reversing the fore-and-aft magnet at this place, the deviation towards the head was cancelled, so that its effect was equal to a deviation of 8°, or ·1392 of earth's horizontal force at the station, or to ·1881 of earth's horizontal force at Liverpool. As the position of the compensating magnet appears to have been again altered, the observations made on the homeward voyage with this compass have been omitted. The observations made on the second outward voyage may, however, be compared with each other, as it is recorded that the magnet retained the same position during this voyage. Observations 1, 5, and 6 give the following equations for the steering compass:—

$$-2{\cdot}75\,x + \quad y = -{\cdot}2215,$$
$$\cdot 404\,x + \cdot 6\,y = \quad \cdot 1908, \text{ or } x = \cdot 0929,\ y = \cdot 2555,$$
$$2{\cdot}1943\,x + \cdot 74\,y = \quad \cdot 2840, \text{ or } x = \cdot 0672,\ y = \cdot 1847,$$
$$\text{or a mean } x = \cdot 08 \text{ and a mean } y = \cdot 2201.$$

Deducting ·1881 for the effect of the magnet, there remains ·032 as the permanent magnetism due to the ship.

For the second outward voyages there are the following equations, Nos. 15, 17, and 18:—

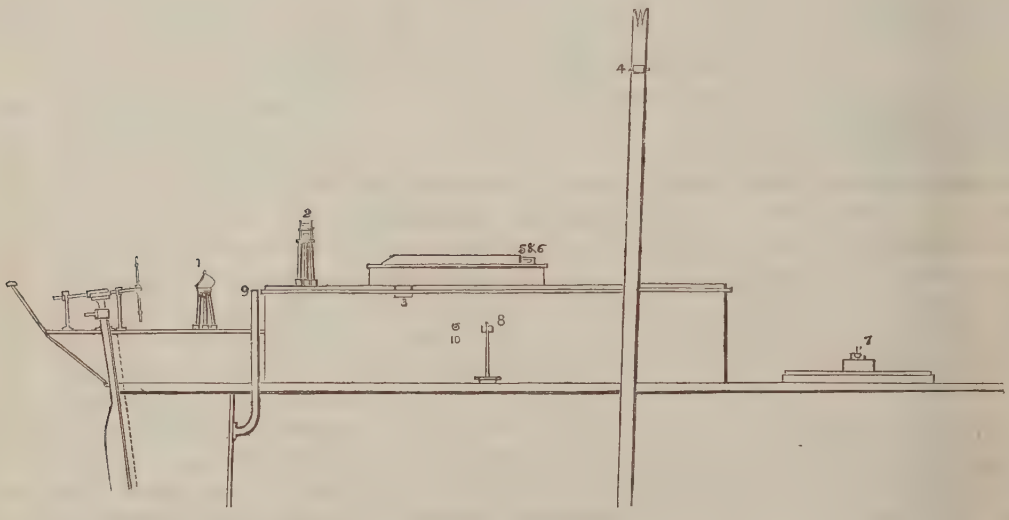
$$-2{\cdot}6395\,x + \cdot 98\,y = -{\cdot}1392,$$
$$1{\cdot}9626\,x + \cdot 75\,y = \quad \cdot 1219, \text{ or } x = \cdot 0573,\ y = \cdot 0125,$$
$$\cdot 2217\,x + \cdot 48\,y = \quad \cdot 0262, \text{ or } x = \cdot 0623,\ y = \cdot 0258,$$
$$\text{giving a mean } x = \cdot 0598 \text{ and a mean } y = \cdot 0191.$$

The change in the fore-and-aft magnetism of the ship at the station of the standard compass is exceedingly small. The observations on the outward voyages show that the transverse magnetism is chiefly sub-permanent, and, as was the case in the "Royal Charter," that it undergoes a considerable reduction in high South latitudes, while the ship's head is in a direction opposite to that in which the ship was built, and readily returns again towards its old condition on the ship's head being placed in a favourable direction.

"Slieve Donard." Captain Thompson.

This ship is of the largest class, and registers about 1500 tons. Like the "Simla" and "Aphrodita," she was also the subject of experiments on the effect of heeling previous to her first voyage. The following observations are selected from the compass-log kept by Captain Thompson, a copy of which appears in the Appendix. Towards the conclusion of the voyage all the compasses show signs of being out of order, and the recorded deviations cannot be received with confidence. The captain, however, states that a few days before making the Channel on his return he took the precaution to put new pivots and agates in place of the old ones, and it will be seen that the latest observations differ very much from those which immediately precede them, and accord more closely with the original deviations with ship's head to the eastward. An attempt was made to compensate the fore-and-aft magnetism at the station of the steering compass by a vertical bar of iron, as in the "Aphrodita;" but it will be observed that this ship, like the "Astræa," requires that the apparent attraction towards the stern at Liverpool should be very considerably over-compensated :—

"Slieve Donard."



1. Steering compass.
2. Second steering compass with vertical card.
3. Skylight or tell-tale compass.
4. Mast compass.

} Four compasses belonging to the ship.

5. Compass placed port side of skylight.
6. Compass placed starboard side of skylight.
7. Compass placed over hatchway.
8. Dipping needle compass.

} Four experimental compasses.

9. Vertical iron bar rivetted to the iron bulk-head below.
10. Position of the dipping needle compass on first experiment.

"Slieve Donard." Captain Thompson. 1st Voyage.

No. of Observation.	Date.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. Force at each Station ÷ Earth's Hor. Force at Liverpool.	Steering Compass.	
							Deviation towards the Ship's Head.	Force to Ship's Head in Terms of Earth's Hor. Force at each Station.
			LIVERPOOL TO BOMBAY.					
	1859.	° ′	° ′	° ′			° ′	
1	February 25	At Liverpool	- -	70 0	2·75	1·0	0 0	—
2	May 1	7 8 S.	31 10 W.	15 0	·2679	·55	10 0	·1736
3	7	17 27 S.	36 10 W.	— 3 0	·0524	·56	23 15	·3947
4	25	36 57 S.	1 45 E.	—46 0	1·0355	·72	43 45	·6915
5	June 2	40 48 S.	31 8 E.	—60 0	1·7321	·81	About 78 0	·9781

No. of Observation.	Date.	Latitude.	Longitude.	Dip.	Nat. Tan. Dip.	Earth's Hor. For. at each Station ÷ Earth's Hor. Force at Liverpool.	Steering Compass. Deviation towards the Ship's Head.	Steering Compass. Force to Ship's Head in Terms of Earth's Hor. Force at each Station.
			ADEN TO BOMBAY.					
6	August 28	12 20 N.	45 14 E.	0 0	·0	·50	18 45	·3214
			BOMBAY TO LIVERPOOL.					
7	Dec. 19	12 2 N.	60 0 E.	− 4 0	·0699	·49	23 0	·3907
8	25	3 58 N.	48 35 E.	−16 0	·2867	·55	26 30	·4462
	1860.							
9	January 1	11 26 S.	42 5 E.	−41 0	·8693	·68	47 0	·7314
10	8	24 0 S.	36 30 E.	−53 0	1·3270	·78	67 0	·9205

These give the following equations for the components of the ship's headward force. They are arranged in the order of the earth's dip :—

No. of Observation.	Dip.	Equations.	Outward Voyage. x	Outward Voyage. y	Homewood Voyage. x	Homewood Voyage. y
	°					
1	70	$-2{\cdot}75x + y = 0$	—	—	—	—
2	15	$-{\cdot}2679x + {\cdot}55y = {\cdot}1736$	·1418	·3900	—	—
6	0	$\cdot5y = {\cdot}3214$	·2337	·6428	—	—
3	3	$\cdot0524x + {\cdot}56y = {\cdot}3947$	·2478	·6815	—	—
7	4	$\cdot0699x + {\cdot}49y = {\cdot}3907$	—	—	·2756	·7579
8	16	$\cdot2867x + {\cdot}55y = {\cdot}4462$	—	—	·2480	·6820
9	41	$\cdot8693x + {\cdot}68y = {\cdot}7314$	—	—	·2670	·7343
4	46	$1{\cdot}0355x + {\cdot}72y = {\cdot}6915$	·2293	·6306	—	—
10	53	$1{\cdot}327x + {\cdot}78y = {\cdot}9205$	—	—	·2651	·7290
5	60	$1{\cdot}7321x + {\cdot}81y = {\cdot}9781$	·2470	·6793	—	—
		Means, omitting No. 2.	·2395	·6586	·2639	·7258

The mean of means will give ·2517 as the coefficient for the ship's fore-and-aft vertical induction, and ·6922 for the ship's permanent magnetism towards the bow, plus the effect of the compensating magnet. Estimating the effect of the magnet as = ·1305, the ship's permanent magnetism will be ·5617, a much larger amount than is exhibited by either of the ships which have been examined, but not more, when compared with the "Astræa," than might have been expected from the large size of the "Slieve Donard," and the direction in which she was built. The same considerations lead to the expectation that in a ship like the "Great Eastern," which is so very much larger, and built with her head much nearer to the South, an enormous amount of magnetism would be unmasked on a voyage which would take her into high South magnetic latitudes.

Before the "Slieve Donard" sailed on her second voyage the steering compass was placed much nearer the vertical compensating bar; and a permanent magnet was introduced, so as to produce a compensation more in accordance with the magnetic condition of this ship, as inferred from the observations at sea recorded by Captain Thompson.*

"Swarthmore." Captain Ledbitter.

This ship, of about 1,400 tons register, was iron framed and plated to the main deck, with wooden sides and spar deck above. The standard compass was placed before the mizen mast, and about 4 ft. 6 ins. above the spar deck. The deviation tables for the compasses of this ship, as obtained by Mr. Wiggins, in the East India Docks, London, in May 1853, indicate that she was built with her head very near magnetic North. The observations made at sea by Captain Ledbitter are the more valuable on this account, as none of the other ships from which compass records have been received were built in this direction.

The first voyage of the "Swarthmore" was to Bombay. A reduction in the deviations of the standard compass is soon apparent, but the reduction is very little more than would be due to the greater directive power of the earth. The difference between the three compasses for which a record was kept, the standard, steering, and fore compasses, never exceeds 5° on the courses steered, until after the ship makes more than 30° of

* Since this was written the "Slieve Donard" has returned to Liverpool from her second voyage, and the captain reports that the steering compass never differed more than half a point from the deviation table which he received in Liverpool before sailing.

South latitude, and this accordance continues, with little exception, until the ship has rounded the Cape of Good Hope, and is put upon more northerly courses.

The following equations appear to be the best which can be obtained from the records of the first voyage for the ship's fore-and-aft magnetism:—

"Swarthmore." Standard compass.

In North latitude, dip 68°. $-2\cdot4751\,x- \quad y = -\cdot2501,$
In South latitude, dip −60°. $1\cdot7321\,x-\cdot8\,y = -\cdot1478,$
or $x = \cdot0140, y = -\cdot2152.$

Steering Compass.

In North latitude, dip 68°. $-2\cdot4751\,x + \quad y = 0.$
In South latitude, dip −60°. $1\cdot7321\,x -,\cdot8\,y = -\cdot0349$

The equations for the steering compass are evidently incongruous. The occurrence of a minus coefficient for the permanent magnetism is only to be accounted for on the supposition that a very great reduction has taken place in the compensating magnets, or that they have been removed altogether.

Before the "Swarthmore" proceeded on her second voyage she underwent a number of alterations, during which she lay for some time with her head to the South. The spar deck was removed, and the standard compass was placed above a deck-house, not far from its first position. The steering compass was adjusted by a magnet, and stated to be without error on the cardinal points. The fore compass was also adjusted, and stated to be without error on these points, except a westerly deviation of 1° 30′ when the ship's head was North correct magnetic.

This voyage gives the following equations for the station of the standard compass:—

Outward.

1.	Lat. 53° 30′ N.	Long. 3° 0′ W.,	dip 70.	$-2\cdot75\,x - \quad y = -\cdot1219.$	
2.	„ 29 14 S.	„ 26 41 W.	−25.	$\cdot4663\,x - \cdot62\,y = -\cdot0828,$	or $x = \cdot0033, y = -\cdot1310.$
3.	„ 36 21 S.	„ 59 56 E.	−65.	$2\cdot1445\,x - \cdot83\,y = -\cdot0262,$	or $x = \cdot0169, y = -\cdot0754.$

Homeward.

4.	„ 30 7 S.	„ 42 05 E.	−58.	$1\cdot6003\,x - \cdot83\,y = -\cdot0828,$	or $x = \cdot0047, y = -\cdot1088.$
5.	„ 19 59 N.	„ 30 30 W.	41.	$\cdot8693\,x - \cdot57\,y = -\cdot0698,$	or $x = \cdot0005, y = -\cdot1233.$
6.	„ Irish Sea		70.	$-2\cdot75\,x - \quad y = -\cdot1219.$	

Giving a mean $x = \cdot0063$ and a mean $y = -\cdot1096.$

Better values will perhaps be obtained by omitting No. 3., when the mean x will be equal ·0028, and the mean y will be equal to −·121. A small difference in the estimate of the earth's horizontal force would cancel out x altogether.

In the log for this ship under date November 26, 1855, occur the following particulars relating to the steering compass, the ship's head at the time being S. 87 E. correct magnetic. On removing the magnet from the steering compass, it read N. 84° E. instead of N. 62 East, as before. On reversing the direction of the magnet, and elevating it 9 inches above its original position, the compass then read S. 78 E., ship's head correct magnetic at the time being S. 86 E. Except that the magnet was afterwards shifted from the starboard to the port side of the compass no change in its position is recorded. On December 24th, in South dip 65°, the ship was swung, the deviations of the steering compass being obtained by comparison with the standard compass, as the sun was not visible. After making an allowance for the deviations of the standard compass, there remains an attraction to the ship's head indicated by a deviation of 19° 45′.

These appear to be the most satisfactory data which the log affords for ascertaining the coefficients for the magnetism of the "Swarthmore" at the station of this compass.

With ship's head by compass N. 62 E. there would be a proportion of the + quadrantal deviation in the observed error of 31°; but as the deviation arising from the attraction to the ship's head would be reduced here in the ratio of sine 62° to 1, these corrections may be considered as compensatory, and the force to head be fairly assumed as = sine 31° = ·515. Calling the force due to polar magnetism after the removal of the magnet = sine 8° = ·1392, and deducting this from ·515, there remains ·3758 equal force of the magnet at this place, and dividing by ·62, to bring it into terms of earth's

horizontal force at Liverpool, it becomes ·6061, or equal to a deviation of 37° 18′. Again, with dip — 65°, and the factor for horizontal force ·83, the headward force will be sine $19° + \frac{\text{sine } 8° \times ·83}{·62} = ·3379 + ·1863 = ·5242$. Then, as the headward magnetism of the ship was exactly compensated by the magnet at Liverpool, there will be the three following equations for obtaining the components of the ship's magnetism at this station:—

$$-2·75\,x + y = -·6061,$$
$$·4663\,x + y = \quad ·1392, \text{ or } x = ·2372,\ y = ·0462,$$
$$2·5837\,x + y = \quad ·5242, \text{ or } x = ·2321,\ y = ·0322,$$
$$\text{or a mean } x = ·2347 \text{ and a mean } y = ·0392,$$

or a permanent magnetism headward sufficient to produce at Liverpool a deviation of 2° 15′ only, and an induced magnetism capable of producing a deviation of —40° 12′.

During the summer of 1856, before the third voyage, additional rows of stringer plates were added to the main and to the lower decks, and an additional row of fore-and-aft plates were fixed in the 'twixt decks on each side of this ship. For a considerable period during the repairs the ship lay with her head to the West. The effect of this can be seen in the recorded deviations. The ship does not appear to have been swung before leaving Liverpool on this voyage.

Through the whole of 1857, in different parts of the East Indies, so far as can be ascertained from the log, the deviation of the standard compass towards the head appears to vary from 0 to — 2°, and back to a small plus quantity. In February 1858, when there are observations on three successive days with ship's head East, in Lat. 45° 30′ S. Long. 141° 40′ E., dip — 72° 30′, the deviations were 1° 20′, 1° 20′, and 2° 30′ respectively, or a mean deviation of 1° 43′. At this time the steering compass showed deviations varying from 36° to 40°. A few days afterwards the captain remarks, "our "steering compass has become so exceedingly sluggish that I have removed the magnet "entirely from its vicinity." In May of the same year, during the voyage from Sourabaya to Madras, the standard compass again shows a deviation to the head of about — 2°. The record of the voyage extends to December 1858, but the fore-and-aft magnetism of the ship at the station of the standard compass shows very little change, although in this part of the voyage the dip varies from — 58° to 65°.

The observations for the following equations were separated by long intervals of time and extreme range of dip:—

Lat. 40° 0′ N.	Long. 15° 0′ W.,	Dip 65°	$-2·1445\,x - ·84\,y = -·1736,$	
„ 42 17 S.	„ 79 41 E.,	Dip —68°	$2·4751\,x - ·78\,y = 0,$	
			or $x = ·0361,\ y = -·1146.$	
„ 45 30 S.	„ 141 40 E.,	Dip —72° 30′.	$3·1716\,x - ·71\,y = ·03,$	
			or $x = ·0354,\ y = -·1163,$	

or a mean $x = ·0358$, and a mean $y = -·1155$, a very close approximation to the results obtained on the second voyage.

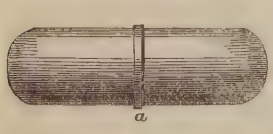
The compass logs on which the preceding discussion is founded, and from which large extracts will be given in the Appendix, are the most complete which have been presented to the Committee. They are the more valuable as containing the records of observations made by practical men, unbiassed by any magnetic theory. To Captain Dalison of the "Advance," Captain S. Nickels of the "Astræa," and Captain Ledbitter of the "Swarthmore," the thanks of the Committee are specially due for compass records continued during several years. The logs which are now being kept by Captain Williams of the "Simla*," and the commanders of some other iron ships, will also, if continued for a few years, be equally valuable. The acknowledgments of the Committee are also due to the captains of the following sailing ships and steamers for the loan of their logs, and to several of them for frequent personal assistance in conducting experiments on board of their ships. To Captain Reid of the "Sarah Palmer," Captain T. Patching, formerly of the "Lady of the Lakes," Captain Stewart of the "Aphrodita," Captain Williams of the "Simla," Captain Thompson of the "Slieve Donard," Captain Carmichael, formerly of the "Fusilier," Captain Robertson, formerly of the "Sappho," Captain Carlyle, formerly of the "Startled Fawn," Captain Fairlem of the "Evangeline," Captain Leitch of the "City of Baltimore" S.S., Captain Haram, formerly of the "Bœotia" S.S., Captain

* Since this was written Captain Williams has presented to the Committee the copy of a most interesting compass log which he kept during a second voyage to Calcutta in the "Simla," in which the effect of the changing vertical magnetism on the polar deviation, and especially on the change in deviation from heeling under varying northern and southern magnetic dip, is very clearly illustrated. See Appendix M.

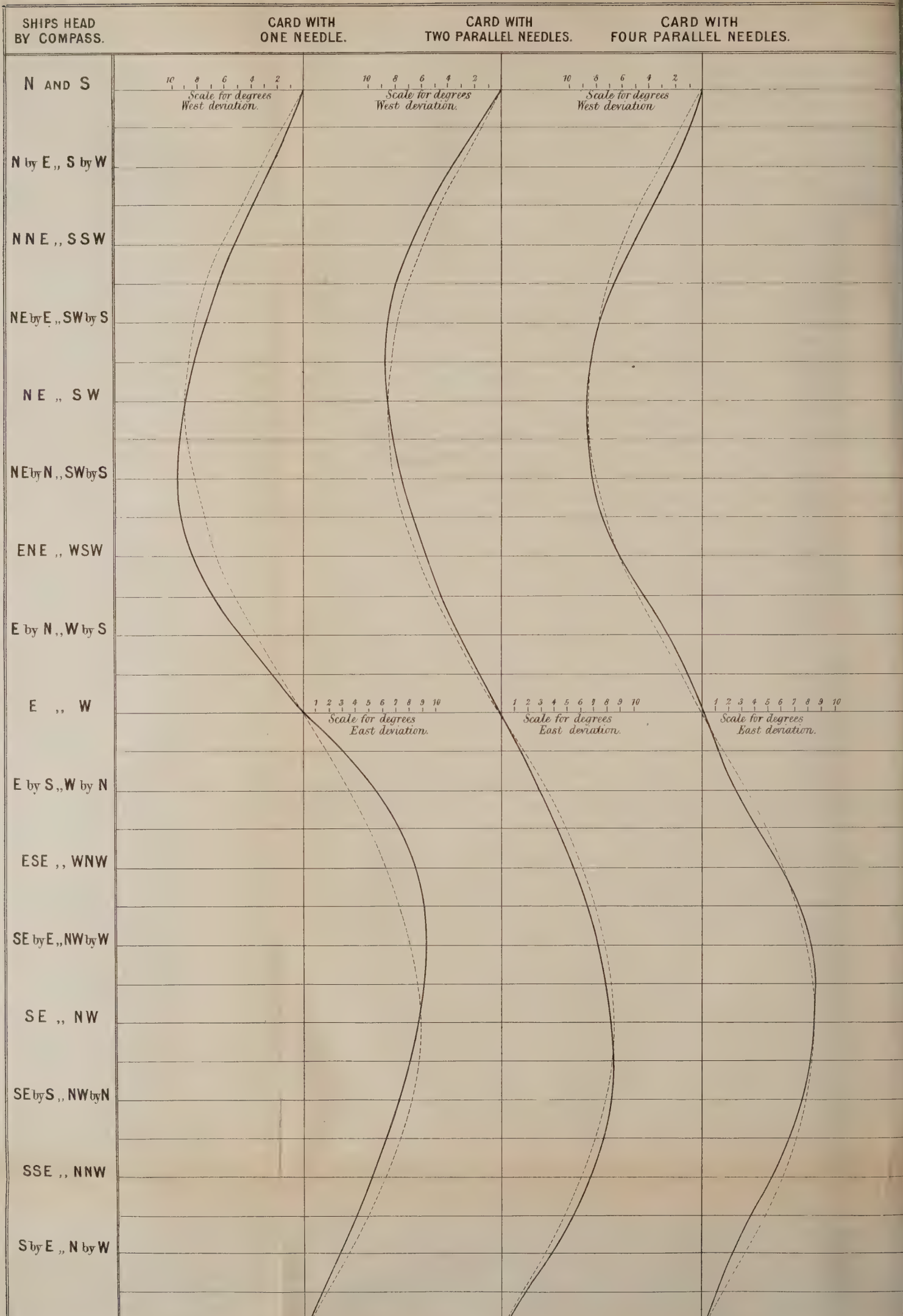
Ballantine, formerly of the "Canadian" S.S., Captain Parkes, formerly of the "Laconia" S.S., Captain Bonfellow, formerly of the "Ionia" S.S., Captain Grange, formerly of the "Indian," S.S., Captain Boyce, formerly of the "Royal Charter," Captain Grey of the "Great Britain," &c. &c. &c.

So early as 1856 an examination of several logs had convinced the Secretary that a large portion of the errors of the steering compass in iron ships was due to vertical induction, and could be in a great measure compensated by a vertical bar placed immediately before the binnacle. In December of that year he made a special report on the subject to this Committee, recommending that a vertical iron bar should be introduced in new iron ships while they were building, at such a distance before the usual position of the steering compass as to compensate the greater part of the attraction of the stern-post and other vertical iron immediately aft the compass. At that time, however, it was thought desirable to wait until further information had been collected, and until some experiments had been made, before any specific recommendations of this kind were put forward by the Committee. The experiments which have since been tried, when taken in conjunction with the discussion of the observation made at sea in different ships and in various magnetic latitudes, now enable this Committee to strongly recommend this suggestion to the consideration of iron shipbuilders, and also to point out to them to what extent magnets must be introduced in particular cases, in combination with the vertical iron, so as to ensure, even on a first voyage, comparative freedom from those large errors which are experienced in high South latitudes, and, as a consequence, that extreme sluggishness of the compass now so frequently complained of. Vertical bars have now been introduced into fifteen ships, in each case with more or less success, as recorded in Appendix H. In five of these only have the bars been riveted to the framework of the vessel, and in these not until the building of the ship was completed. In the others the bars were necessarily short, so as not to interfere with the cabin fittings. In no instance has the effect of the iron bar been in excess; on the contrary, it has been found that either a larger bar, or the placing of the compass nearer to the bar, would have been an improvement. If the bar were fixed while the vessel was building, so as to be subject to the same concussions as the sternposts, &c., the compensation may be expected to be more perfect. Perhaps the most remarkable result of this part of the investigation is the abundant proof it affords that in one class of ships the vertical bar in this latitude must be placed so near the compass as to produce an excess of deviation towards the bow. The "Advance," the "Astræa," and especially the "Slieve Donard," are instances of this class, and would respectively require an attraction to the bow from the vertical iron equal to ·2656, ·3408, and ·5085 of the earth's horizontal force at Liverpool.

A number of experiments have also been made on the compensation of that portion of the magnetism of iron ships which produces quadrantal deviation, by the use of cast-iron, instead of the boxes of iron chain which have for many years been employed for this purpose. Before placing any cast-iron correctors on board ship a number of trials were made with cast-iron cylinders, to ascertain whether they would retain any magnetism. Cylinders of two sizes were employed, one nine inches long by three inches in diameter, the other size twelve inches long by about three and a quarter inches in diameter, the ends of each being made globular, as represented in the accompanying sketch. At first a small collar (*a*) was cast upon them, to keep them from slipping from the brackets on which they are supported, but this was afterwards found to be unnecessary. These experimental cylinders were cast from the best No. 1. iron, and were submitted to blows while held in the direction of the earth's magnetic force; they were also kept for a considerable time in this direction, to ascertain whether they would retain any of the induced magnetism due to the position, and were found to be perfectly free from any permanent magnetism. Other cylinders were cast in the line of magnetic dip, and allowed to go cold in this direction, but did not retain any magnetism from this treatment. These trials appeared conclusive as to the suitability of cast-iron for correcting the deviation arising from horizontal induction. It should be mentioned, however, that some specimens of cast-iron, said to be best No. 1., have since been seen, which held a small portion of permanent magnetism, but not so much as to interfere with their use for correctors. The nine-inch cylinders are suitable for correcting quadrantal deviation not exceeding 5°, and the 12-inch cylinders for deviations not exceeding 8°. The quadrantal correctors tend to increase the directive power of the compass to which they are applied, but they should not be placed nearer than 1·25 lengths of the compass needle from the centre of the card. When the distance exceeds this proportion, the compensation is



PALL MALL


SHIPS HEAD BY COMPASS.
CARD WITH ONE NEEDLE.
CARD WITH TWO PARALLEL NEEDLES.
CARD WITH FOUR PARALLEL NEEDLES.
N AND S
N by E ,, S by W
NNE ,, SSW
NE by E ,, SW by S
NE ,, SW
NE by N ,, SW by S
ENE ,, WSW
E by N ,, W by S
E ,, W
E by S ,, W by N
ESE ,, WNW
SE by E ,, NW by W
SE ,, NW
SE by S ,, NW by N
SSE ,, NNW
S by E ,, N by W
10 8 6 4 2
Scale for degrees West deviation.
1 2 3 4 5 6 7 8 9 10
Scale for degrees East deviation.

Day & Son, Lith.rs to the Queen.

sually sufficiently correct for practical purposes. The use of very large cards with orrespondingly long needles is adverse to good compensation; and it is worthy of remark, hat, length of needle and other circumstances being the same, compensation of the uadrantal deviation is more perfect with a double needle card than with a card having nly one needle. The diagrams in Plate V., and the following tables, will illustrate the eviations produced by the quadrantal correctors, when applied to cards having one, two, nd four needles. The four-needle card experimented with was one of the Admiralty andard compass cards.

The dotted curves in the diagrams are calculated curves, or curves representing the eviations which would have been produced had the compass needle been extremely nall in comparison with the distance of the correctors. Tables with the results of he experiments are given in Appendix K., also some specimens of the quadrantal eviations observed on board ship, after the polar deviations have been more or less ompletely compensated by the application of magnets. It will be observed that some f these deviations are very large in amount, and that they are usually greater in two uadrants than in the two adjacent ones. This inequality in the deviations in the ifferent quadrants might be considered as due to the difference in the directive power of he compass needle in the different positions of the ship, if it were not also found in ases in which the directive power must have been very nearly equalized by polar com- ensation with magnets. It seems probable, therefore, that the difference alluded to may o some extent be occasioned by a greater susceptibility in the iron of the ship to agnetic induction in one direction rather than in another.

On the supposition that the horizontal inductive force acts in the direction of and in roportion to the resultant of the earth's and of the ship's polar magnetic force (see iagram and tables in Appendix L.), the quadrantal deviations must necessarily e dissimilar in the different quadrants. Thus with a polar magnetism due to ship equal o ·379 of earth's horizontal force at a starboard angle of 257°, and a capacity for orizontal induction in transverse iron equal to ·209, the deviations in the several uadrants will be as follows:—

1st Quadrant.		2d Quadrant.		3d Quadrant.		4th Quadrant.	
Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
	° ′		° ′		° ′		° ′
N.	0 0	E.	0 0	S.	0 0	W.	0 0
N. by E.	2 30	E. by S.	−3 10	S. by W.	3 8	W. by N.	−1 28
N.N.E.	5 40	E.S.E.	−5 55	S.S.W.	5 12	W.N.W.	−2 42
N.E. by N.	7 30	S.E. by E.	−7 58	S.W. by S.	5 50	N.W. by W.	−3 40
N.E.	8 25	S.E.	−8 58	S.W.	5 25	N.W.	−4 20
N.E. by E.	7 40	S.E. by S.	−8 10	S.W. by W.	4 32	N.W. by N.	−4 22
E.N.E.	5 55	S.S.E.	−6 25	W.S.W.	3 10	N.N.W.	−4 5
E. by N.	3 10	S. by E.	−3 40	W. by S.	1 33	N. by W.	−2 38

The deviations on the four point courses are respectively 8° 25′, −8° 58′, 5° 25′, and −4° 20′, or a mean coefficient for quadrantal deviation of 6° 47′.

It will be seen also, on the supposition just enunciated, that as the polar magnetism of the ship becomes less, whether by change of dip or by gradual loss of sub-permanent magnetism, so would the discordance in the values of the quadrantal deviation in the several quadrants decrease.

The following additional remarks on quadrantal deviation are offered as the result of observations made by the Committee:—1. Quadrantal deviation may be large in amount in a small ship, and small in a large ship, and the reverse; 2. Generally it is larger in amount in the middle of a large ship than in positions nearer to the ends; 3. It decreases rapidly as the compass is raised above the deck, and at a certain height above it may change from plus to minus; 4. In the usual positions for a compass the quadrantal deviation is almost invariably plus, but it may be minus in a compass placed over a hatchway or skylight, or on the bridge between the paddles of a paddle wheel steamer, or, as before stated, at some height above the deck, as on a mast. Plus quadrantal deviation is so generally observed because the compass is relatively so much nearer to the transverse than to the fore-and-aft iron of the ship; to the sides than to the ends of the ship. It is in fact the amount by which the earth's magnetic induction in the transverse iron of the ship exceeds the induction in the fore-and-aft iron, as felt at the station of the compass. It is the difference or resultant of two mutually opposing forces which may exist in different proportions in ships of the same size, and which must necessarily vary as the relative distance of the compass from these forces is changed.

The Committee, however, would not countenance the supposition that any complete explanation has yet been given why the quadrantal deviation is so much greater in some ships than in others, or why it should be so much greater in some quadrants of the compass than in the adjacent ones in the same vessel. Neither would they have it supposed that the quadrantal deviation can be taken as a measure of the susceptibility of the ship for magnetic induction, except in ships of precisely the same size and construction; much less that it affords any indication of the capacity of the ship for sub-permanent magnetism, as it is believed that these two qualities exist together in different proportions in different kinds of iron. It would also be premature to suppose that either susceptibility to induction or capacity for retaining magnetism may be taken as an index to the quality of the iron. Specimens of very good iron have been found to possess both qualities largely.

It has been long known that iron and some other metals undergo a molecular change in the course of time, and become more crystalline and less able to bear concussion, and that this condition may be hastened by vibration. Mr. Airy, in his first paper on the magnetism of iron ships, alludes to the possibility of this change being accompanied by a corresponding change in the ship's magnetism, and urges this as a reason for keeping a sufficient register of the magnetic condition, and the circumstances attending the building of all iron ships. The particulars which the Committee have been able to collect on some branches of the subject since 1855 will, it is believed, afford an appropriate commentary on this recommendation. They will at least serve as an index to the mass of information which would now have been available had the complete records, as proposed, been commenced in the year the paper appeared, 1839.

The attention of the Committee has necessarily been drawn to the question of quality of iron, as affecting the magnetism of the ship; but their experience is not sufficiently generalized for publication, even if this part of the subject were free from the difficulty which always exists when the property of other persons has to be commented upon. The following extract is taken from the paper now alluded to:—"It is believed by "practical men that the state of malleable iron changes from time only. If this be "certain, and if the notion just mentioned be plausible (that permanent magnetism in "iron depends on an artificial arrangement of the particles of the metal), it seems "sufficiently probable that the independent magnetism of the ship will change with "time. This consideration enforces strongly the necessity for periodical examination, "as suggested above. Such examination may possibly have an advantage beyond "the correction of the compass for the time. An important change in the magnetism "may indicate an important alteration in the quality of the iron, and may serve as "a warning to be cautious of trusting to the strength of the ship in critical cir-"cumstances."

Changes in the magnetism of new iron ships, and change from keeping a ship for some time in one position, while undergoing repair, and from concussion, were adverted to in the last Report, and some examples were also given. The following examples are selected from cases which have been observed since:—

The "Aphrodita," built head to East, was kept, after launching, with her head as much as possible in the opposite direction. When nearly ready for sea she was swung, and the deviation towards the starboard side of the ship, by the Admiralty standard compass, amounted to 17° 45′. She then was put into graving dock, and remained for some time with her head about S. 75° E.; on being swung after this, the deviation to the starboard side was found to have increased to 21° 30′, showing an increase of 3° 45′ by keeping her head to the eastward. After remaining a few days longer with her head eastwardly she was removed into the river. While going out of dock she came into violent collision with the pier, her head at the time being rather to the South of West. On again swinging her before she sailed on her first voyage the deviation to starboard was found to be reduced to 17° 52′. This was in 1858. In November 1860, after making two voyages to Calcutta, she was refitted in graving dock, with her head N. 75° W., and then lay for a short time with her head to the North. On swinging her after this the attraction to starboard was found to be only 2° 13′. The deviations towards the stern on these four occasions were respectively 12° 5′, 10° 7′, 9° 30′, and 4° 10′.

The ship "Sarah Palmer" was built at Warrington in 1855, of Staffordshire iron, and with her head about E.S.E. The standard compass was placed above a deck-house between the main and fore masts, and was about 12 feet above the deck. The deviation here was towards the head and to the starboard side. After a voyage to Calcutta the ship was re-swung, and the deviations were found to be very nearly the same as at first. The deck-house was afterwards removed, and the standard compass was then placed between the main and mizen masts, but about the same height above the deck. In this

position the deviation towards the starboard side was nearly the same as at the first station, but the fore-and-aft attraction was towards the stern instead of towards the bow. The deviations here were equally as permanent as at the first position. During the summer of the present year, however, she underwent a thorough refit, while in graving dock, with her head to the westward, and a doubling, consisting of two rows of plates, was added to each bilge. On swinging her when she was again ready for sea it was found that the magnetism retained by the port side of the ship was sufficient to completely cancel the old deviation of the needle towards the starboard side, which in 1858 was 6° 30′.

Both of these ships were built of iron of superior quality, though of different retentive power for magnetism. The reduction in the transverse magnetism of one ship appears to have been gradual, but to have nearly disappeared after two voyages to Calcutta. The other appears to have retained much of her original magnetism during eight voyages to Calcutta, but it disappears through the hammering and concussion she received while in graving dock, with her head in the opposite direction to that in which she was built.

A notable instance of an iron ship being fitted for sea in nearly the same position as that in which she was built, and showing changes in the deviations of her compasses immediately she is removed from this position, is afforded by the "Great Eastern" steamer.

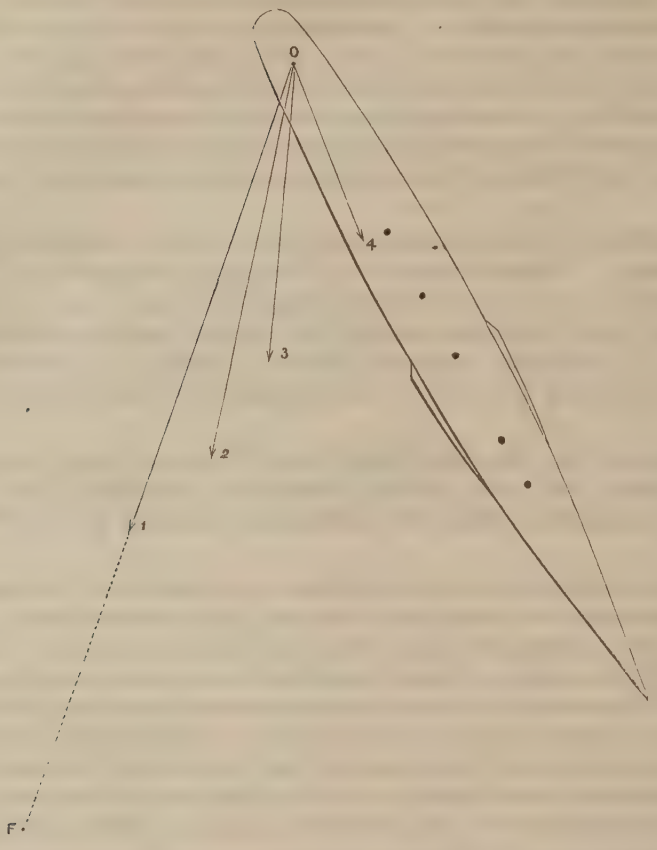
It was thought desirable by this Committee, on account of the size of the "Great Eastern," and the enormous quantity of iron used in her construction, that some record should be made of the magnetic elements of this immense vessel. The Secretary was therefore instructed to make as many experiments for this purpose as circumstances would permit. The details of these experiments are reserved for the Appendix. Here it will be sufficient to mention the general results. Most of the observations were made jointly by the Secretary and Mr. Evans of the Admiralty Compass Department, to whom the Committee are much indebted for his able and zealous assistance in this as well as in other departments of the Compass inquiry. The Committee have also to thank the directors and other gentlemen connected with this ship for the facilities which they afforded for these experiments.

As was anticipated, from the previous experiments of this Committee, the deviations observed in the Thames did not correspond with those made the same day at the Nore. Those observed two days afterwards at Portland showed a more decided change, both in the amount and direction of this ship's magnetism. A still further change in amount and direction is exhibited by the observations made about six weeks afterwards at Holyhead, and a yet greater change was observed by Mr. Evans at Southampton, about eight months later.

The annexed diagram represents the relative change in the direction and amount of the magnetism of this ship while in the Thames, at Portland, at Holyhead, and at Southampton. The vertical line shows the direction and mean relative amount of the earth's horizontal force at these stations. The ship is represented in the direction in which she was built. It will be observed that the magnetic axis of the ship tends more and more towards the vertical plane which passes through her keel.

(*See next page.*)

"Great Eastern."



1. Relative direction and amount of the ship's horizontal force at the station of the Admiralty Standard Compass, 7th September 1859, in the Thames.
2. Do., do., 12th September, at Portland.
3. Do., do., 23d September, at Holyhead.
4. Do., do., 15th June 1860, at Southampton.

The earth's horizontal magnetic force at the time being equal to the line O F.

That the magnetism of this ship has undergone a further change during her voyage to and from America can admit of no doubt. It must, however, be remembered that these changes, though very decided, afford little support to the assertions which have sometimes been made of *sudden* changes in the deviations of a ship's compass while at sea. It must also be remembered that these changes occurred in a new ship, one fitted while lying in the same direction as that in which she was built, and one built in a direction which is specially subject to changes of this kind. (*See* particulars respecting the "Bœotia" and "Ionia" in Report II.) The northern polarity of the vertical iron near the stern of iron ships built with their head more or less to the South in this magnetic latitude is in constant opposition to the vertical induction of the earth in this hemisphere.

Towards the close of their last Report this Committee ventured to suggest, for the consideration of the Board of Trade, a mode by which it was thought a great deal of information could easily be collected on the present system of compass correction and compass management in iron ships. It is believed that this part of the subject still requires examination.

The views of the Committee have, however, been so ably expressed by one of the highest authorities on the magnetism of iron ships, that they prefer on this occasion to quote the following passage from Mr. Archibald Smith's introduction to Dr. Scoresby's journal of his voyage in the "Royal Charter:"—

"The Board of Trade has lately directed the attention of the mercantile marine to "this subject in its publications (deviations of the compass), but it has not yet taken "up the subject in that systematic and continuous way to which the Report of the "Liverpool Compass Committee points as desirable. That this might be done with "great advantage, and with little more expense than that incurred by the Liverpool "Compass Committee during its existence, does not admit of doubt. Whatever differ-"ence of opinion may be entertained as to applying correctors to the steering compasses

" of iron ships, it can hardly admit of question that every iron ship should have at least " one compass removed as much as possible from the influence of iron, and not corrected " by magnets, and should be swung at the beginning and end of every voyage of any " length, and the deviation of the uncorrected and corrected compasses (if any) observed. " *No man is competent to command an iron ship who is not competent to make these* " *observations;* and if these observations were transmitted to the Board of Trade, and " systematically reduced, and discussed and published, most valuable results would " certainly be obtained. It may be added that the observations so made would furnish " a test of the care, skill, and good faith of the captain who made the observations, as " the process of reduction shows almost infallibly the genuineness and correctness of the " observations."

Undoubtedly the best practical corrective for errors of the compass of all kinds is to be found in a competent and careful captain. How to make the captains and future officers of iron ships more competent in this special department of their very varied duties deserves the most careful attention. A fair knowledge of the elements of magnetism and mechanics may, it is thought, be reasonably required in the commander of an iron ship. The practical mode of correcting the compass is so simple, and may be acquired in so short a space of time, that every officer in an iron ship might be expected to show practically that he can perform this operation.

Only those who have made it a subject of inquiry can form a correct idea of how large a proportion of the complaints respecting the compasses of iron ships have reference to their sluggishness and want of directive power. Either by celestial observation, or by the "inverse" method, before alluded to, the correct direction of the ship's head is usually very approximately ascertained. What is chiefly required is a steering compass, which in all latitudes and in all directions of the ship's head shall have enough directive power for the wants of the man at the wheel. It is to produce this desirable result that the Committee have already recommended the introduction of a vertical compensating bar in the construction of iron ships, and that they now recommend the officers of iron ships to master for themselves the mode of properly applying a compensating magnet whenever it may be required at sea.

But not unfrequently the reported compass errors of iron ships arise from purely mechanical causes, which have no connexion with the ship's magnetism. They are sometimes due to cracked or holed agates, but more commonly to worn pivots, with needles which have never had or have lost their proper directive power. An opinion prevails with some compass makers that the steel pivot for the card should not be hardened, and a compass maker of some note actually refuses to supply any but pivots of soft steel, except by special request. The objects sought are stated to be preservation of the agate cap and steadiness of the card. Lapidaries and gem engravers consider that the soft metal would have the opposite effect; and any steadiness in the card which is due to a blunted pivot must necessarily be at the expense of accuracy.

The number of cases which have come before this Committee of deviation arising from blunted and worn pivots is such as to leave no doubt that this is a most prevalent source of error and bad steering. In one case, in a screw steamer in active employment, the pivot had not even been examined for about eight months; in another screw steamer the pivot had not been changed or sharpened for nearly twelve months; and in a third case the agate cup in which the pivot rested had been filled up with brickdust, for the purpose, it was stated, of steadying the card, so that when examined it was found that the vibration from the screw and the grinding of the brickdust had made a hole completely through the agate. In the last instance the captain had rectified a supposed error of two points by placing the compensating magnet in a position very much nearer the compass card; so near, in fact, as to produce an error of the same extent.

The cases quoted refer to steering compasses, which are said to receive less attention in some ships in consequence of the courses being set by a standard compass, and because an officer is always placed, in well-regulated ships, to see that the course by the standard compass is strictly kept; but the standard compass itself is not free from the same source of error, and more especially a standard mast compass, as mast compasses are often placed in a position not easily accessible, and where they are seldom examined until something connected with them goes conspicuously wrong.

While these causes of error are prevalent, there will constantly be reports of deviation from "the attraction of the land," of "compass disturbance from fog," of "unusual aberration" of "indraught," and the other unfounded or imaginary pretexts which are now put forward when an iron ship gets stranded.

In some cases shipowners instruct the nautical instrument maker to examine the ship's compasses after each voyage. The compasses are then collected, and taken to the workshop, but not always with the desired result, as the Committee have witnessed instances (where the instruments have probably been put into the hands of apprentices or unskilful workmen) of the compasses coming back to the ship with the needles on the card placed with their poles in opposite directions; with the pivots longer or shorter than they should be, so that the point of suspension of the card is no longer in the plane of the gimballs; with the needles and cap fixed on the wrong face of the card, so that the East and West points of the card were reversed. The best and almost the only remedy for these and the other errors belonging to the compasses of an iron ship must, it is believed, chiefly depend on the care and attention of the master, on his knowledge of the principles of magnetism, and on those mechanical properties on which good compass action depend, and especially on his personal attention to those little mechanical, but important details, which are so essential to the satisfactory working of this instrument.*

Another matter of some practical importance which has been brought under the consideration of this Committee is the proper time for swinging iron ships, and more particularly for steamers, such as those which trade regularly to the Baltic, to the Mediterranean, or to America, and what amount of dependence the captain should place in the deviation table which is or ought to be supplied to him by the compass adjuster. There appears sufficient reason for requiring that a new iron sailing ship or steamer should be swung immediately before each of the first two or three voyages; that all iron vessels should be swung immediately before the first voyage following any considerable amount of repair; whenever a change has been made in the position of the standard compass; when there is a change of captain, unless the new captain had charge of the vessel during the preceding voyage as chief officer.

Swinging at any other time may, it is thought, be left to the discretion of the captain. A new captain is often not completely master of his position. He wishes before going to sea in a strange ship to be satisfied as to the deviations of her compasses, but fears that his motives or his competency may be suspected if he advises what, under the present system, involves some expense, in addition to the delay of a tide or two in getting the ship to sea. He, perhaps, ventures to allude to the subject, and is at once told that the former captain had sailed her without requiring that she should be swung, and that there was never "any difficulty" with her compasses. The new captain is thus put on his mettle; he makes inquiries of others how they manage, and resolves to use the utmost caution in clearing the Channel. If the weather is favourable he does it without difficulty, and all goes well. The captain has gained experience, and the owners have saved expense and gained despatch. But, on the other side, if the weather is thick and unfavourable, how unsatisfactory and full of anxiety is the position of the captain. He has no means of discovering his error until he is actually in danger; and in the event of a casualty, with whom rests the responsibility?

It must not, however, be forgotten, that the utility of swinging ship is chiefly confined to assisting the captain in first clearing his port and the neighbouring channels in case of thick weather, and ought not to supersede his making observations for himself whenever he has the opportunity; in short, that the deviations observed in port when the ship is upright and at rest should always be considered subordinate to observations made at sea under various degrees of heel of the ship, and, in steamers with the addition of the vibration of the screw. These observations are by far the most important, but they must be taken in connexion with all the collateral circumstances.

It has been noticed that strandings have often occurred with steamers on the first voyage after being swung; and it is known that many captains, after making two or three voyages, have a great repugnance to any change being made in the compensation of their compasses. They submit to the ship being swung when the appointed time comes round, but perhaps make no use of the deviation card which is then obtained. By practice, they have found for themselves what error must be allowed on the different courses incident to the voyage; and if the compensating magnets had been removed they would have had to relearn their courses again. The word "error" is advisedly used here, as it is not compass deviation, properly so called, which they ascertain, but the resultant error from all the causes which have affected the ship's course on the particular trials from which the deduction has been made. Change

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* These remarks apply to the compasses of wooden ships quite as much as to those of ships built of iron; and captains of wooden ships often report large compass errors which can only be attributed to similar mechanical causes.

the circumstances, and the course is no longer made correctly. The course steered is selected as being the mean result of many trials; the causes which operated in each to produce the observed issue were perhaps never estimated, and, as a consequence, there is always a probability of a deviation from the intended course through some of the conditions having been changed. By much care and attention, and frequently through good fortune, accidents from the causes now alluded to are not numerous; but when they do occur they are of so fearful a nature as to challenge public attention and inquiry. Unfortunately, in cases where compass deviations are supposed to have in part occasioned the casualty, too little has been known of the subject to elicit to what extent they have been in fault, or how a recurrence of the accident might be prevented. In a screw steamer when under sail seven distinct causes may have conspired to produce the course which has been "made good," namely,—

1. Set of tide or current.
2. Set of the screw.
3. Leeway.
4. Good or bad steerage.
5. Variation of the compass.
6. Deviation of the compass.
7. Extra deviation from the heeling of the ship.

Again, the influence of some of these causes varies with the time occupied on the course; others vary in proportion to the distance gone over; but until the captain of the screw steamer is able to estimate how much each cause is likely to affect the course which is to be steered, and the limits within which his estimate is likely to be erroneous, he must ever be subject to much uncertainty as to the result. The experiments on the effect of heeling on the compasses of iron ships recorded in this Report, the evidence on the same subject afforded by the logs given in the Appendix, and the concurrent testimony of commanders of screw steamers of undoubted ability, all show how important an element this is in shaping a course, and more especially on courses like those between Cape Sable and Cape Race, the coast of Spain and the entrance to the English or Irish Channels, and many others. It is most essential then, that the captains and officers of iron ships should be well informed on this subject. Where so many imperfectly ascertained elements combine to produce a result there will always be occasion for care and forethought; and the information which the Committee urge as so necessary does not dispense with the utmost care, but rather seeks to assist by giving it proper direction. The managing owner of a number of iron ships once remarked, "Compasses in iron ships "never are and never will be correct, and I do not want the compasses in my ships to "be so. I forbid my captains to suppose it possible, as they would then become careless." The recommendation of this Committee requires the same caution, while it shows on which side danger is to be apprehended. The well-informed captain can thus proceed with confidence under circumstances in which the equally cautious but ignorant captain would have to lie-to or proceed slowly; or, on the other hand, in cases where information on the effect of heeling would counsel a change of course the ignorant captain might go blindly forward into danger.

The Committee have pleasure in including in the Appendix to this Report two letters which they have received from Mr. Thomas Bennett, Compass Adjuster, Cork, which contain many remarks on compass adjustment and swinging ship that appear well worthy of careful consideration, and not less so because to some small extent the experience of Mr. Bennett does not accord with that of this Committee. In many important particulars, however, they will be found to confirm the observations made in this and the preceding Report.

Before concluding this Report it appears desirable that some explanation should be given of the delay which has occurred in its presentation. It is due to this Committee, as well as to the Secretary, Mr. Rundell, to explain, that in the spring of 1857 it was determined to dissolve the Committee at midsummer, and Mr. Rundell was permitted to anticipate its dissolution by accepting another situation, on condition that he should prepare a final Report for the Committee by the close of that year. But the heeling experiments made on board the "City of Baltimore" towards the end of 1857 showed that a most important part of the Compass Investigation would be left very incomplete if the Report were closed at the time intended. It was therefore thought advisable to leave the matter entirely to the discretion of the Secretary. The preparation of the Report has thus depended on his leisure hours and the time that could be spared from other

duties, and for the last three and a half years has been altogether an honorary task. The delay occasioned in this way has, however, enabled the Liverpool Compass Committee to present to your Lordships a much larger collection of facts and experiments than could at first have been reasonably hoped for, and to practically develope the subject of this inquiry to an extent which it is believed must materially influence the navigation and compass management of iron ships.

THOMAS BROCKLEBANK,
Chairman.

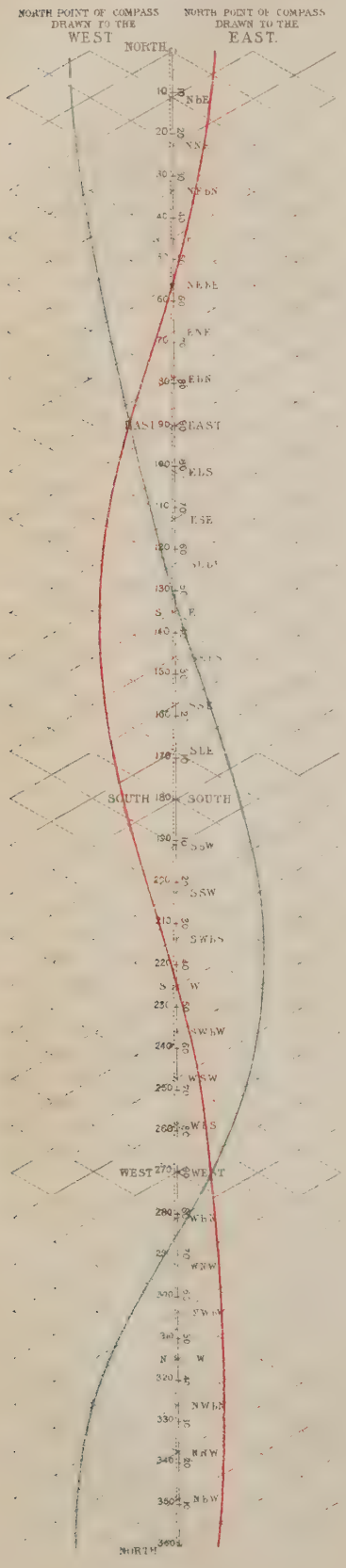
Liverpool, February 13, 1861.

PALL MALL

CITY OF BALTIMORE.

(CONTINUED.)

GRAY'S COMPASS.



COMPASS OVER THE FORE HA

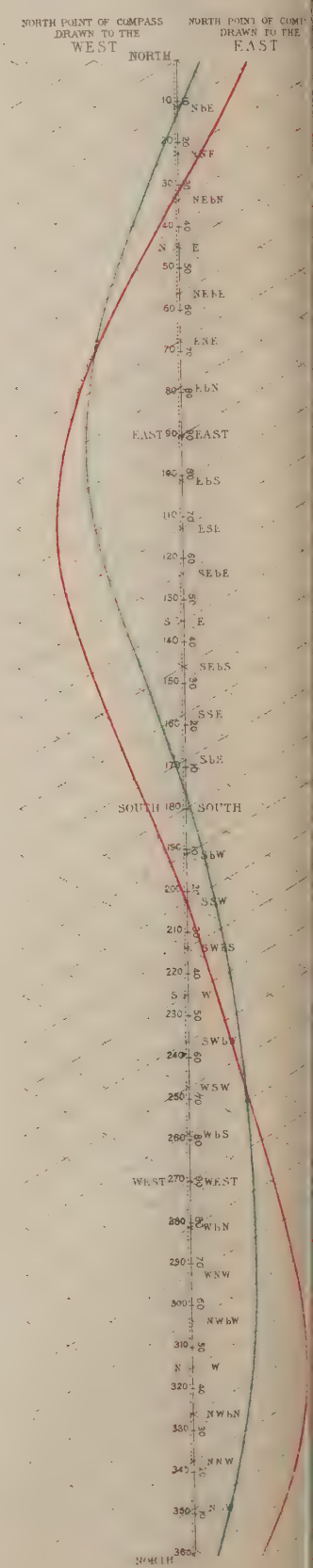


PLATE VI Appendix A.

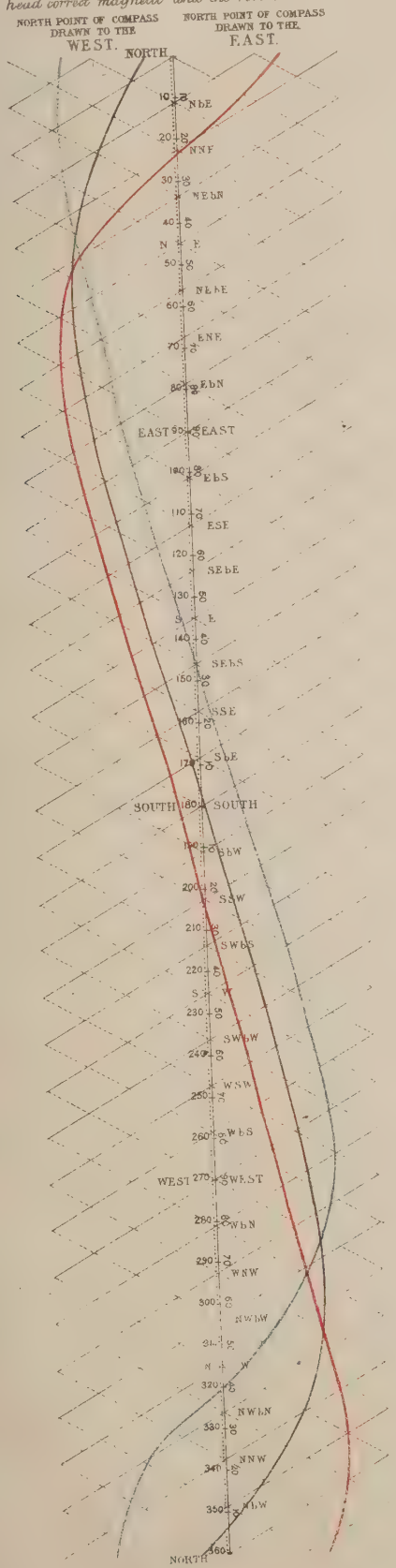
CITY OF

THE BLACK CURVES SHOW THE DEVIATIONS WITH SHIP UPRIGHT;

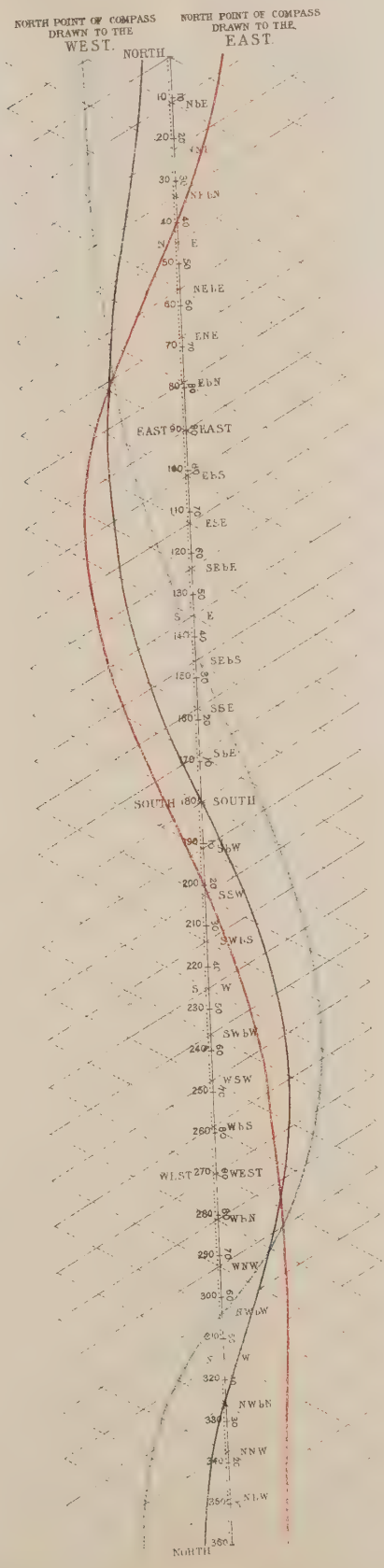
THE BLUE CURVES THE DEVIATION

AFTERMOST COMPASS

The deviations were twice as large as is shown on this scale, this must be remembered in converting ship's head by compass into ship's head correct magnetic and the reverse.



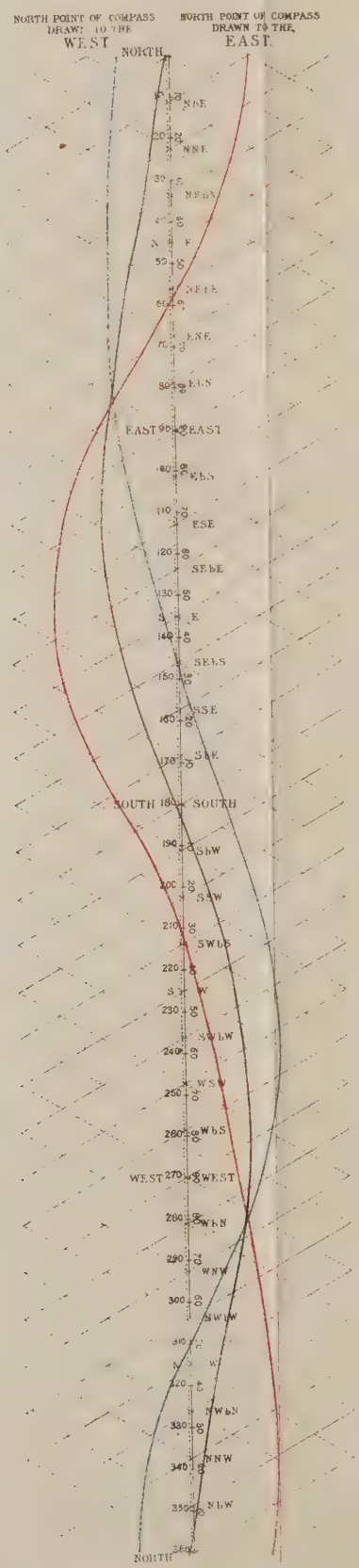
AZIMUTH COMPASS



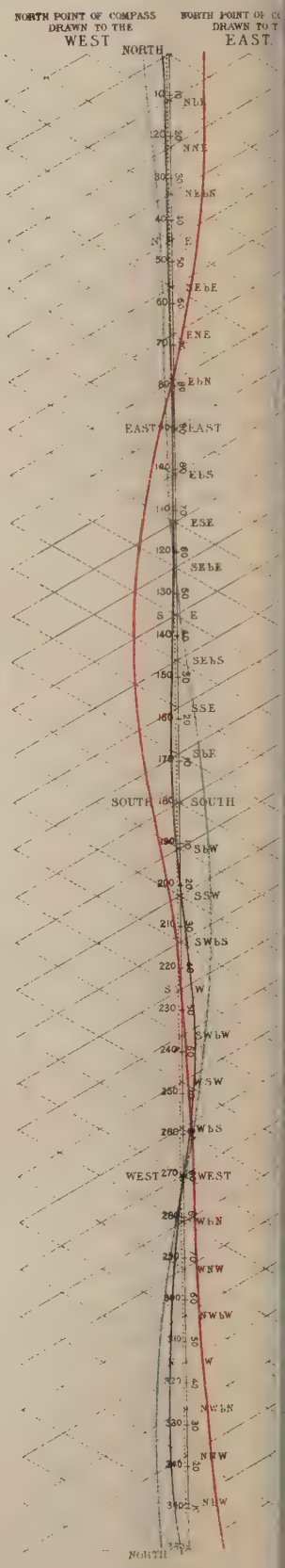
BALTIMORE.

THE RED CURVES THE DEVIATIONS WITH THE SHIP HEELED 10° TO PORT;
S WITH THE SHIP HEELED 10° TO STARBOARD.

DIPPING NEEDLE COMPASS.



FORE COMPASS (COMPENSATED)



APPENDIX.

APPENDIX A.

EXPERIMENTS to ascertain the Effect of HEELING on the COMPASSES of the Steam Ship "CITY OF BALTIMORE," June 8th and 9th, 1857.

ARRANGEMENTS were made by the Compass Committee to conduct these experiments in the Wellington Basin, Liverpool, this dock being specially adapted for swinging ship, but at the appointed time it was found that the ship had been placed in the Huskisson Dock, in which was a number of iron steamers, some of them so close as to affect, it was feared, the accuracy of the results. As no notice of the change had been given, and time pressed, it was impossible to arrange any system of shore bearings so as to be independent of a shore compass placed very close to the dock. In consequence of this, the observations are subject to any errors which belonged to the shore compass, which could not always be kept near the same place. From subsequent examination it appeared probable that these errors were too small to sensibly affect the principal object of the experiments, but they probably influence the co-efficients for index error of the different compasses, and in consequence require to be mentioned here.

Great care was taken to keep the ship as far as possible from the other iron ships which were in the dock, and, with the exception of one instance, in which the compasses near the stern were seen to be influenced, and note of which is appended to the record, no error of consequence can be attributed to this cause.

Mr. Towson took charge of the dipping needle compass, and conducted the vibration and dip experiments, with the assistance of the Secretary; Mr. Gray and Captain Leitch read the compensated compasses; and Mr. Gray, with his assistant on shore, undertook to give ship's head correct magnetic. The Secretary kept the record of the whole of the observations, and, as far as possible, checked the shore bearings by means of a "Friend's Pelorus."

In the accompanying tables the observations are given in the order in which they were made. A slight inspection will be sufficient to show that the deviations from heeling are so large in amount as to be affected only to a small extent by the causes of error which have been alluded to.

The magnetic co-efficients for the stations on board the "City of Baltimore" and on board the other ships which will have to be noticed were obtained by the formula given by Mr. A. Smith in the "Supplement to the Practical Rules, &c.," published by the Admiralty, no allowance being made for the polar deviation from horizontal induction which is due to the unsymmetrical arrangement of the ship's iron, especially when the ship is heeled. As this polar deviation retains the same sign in each semicircle, it affects the co-efficient for index error by producing an apparent plus A when the ship heels to port, and a minus A when the ship heels to starboard. Apparent index error from the same cause (unsymmetrical arrangement of the ship's iron as regards the compass) is also to be traced in most deviation tables for ship upright. Its amount can readily be found by inspecting the several equations for co-efficient A as obtained by Mr. Smith's formula.

As regards the varying values for quadrantal deviation at the same station in the same ship (co-efficient D), both in these experiments and in others of the same kind, these are thought to be to some extent due to the more or less rapid manner in which the swinging of the ship was effected, as there is reason to believe that when the ship is swung very quickly and easily the quadrantal deviation is not so large as when the ship is allowed to rest for a short time at each observation. The same cause and the direction in which the ship is swung are also believed to affect the value and the sign of co-efficient E.

In connexion with these remarks see particulars of the experiments on board the "Simla," Appendix C., page 53.

STEAM SHIP "CITY OF BALTIMORE."

HUSKISSON DOCK, LIVERPOOL.—June 8th, 1857.

Ship's Head, correct Magnetic.	I.—Compass placed above the Aft Side of the Round House.		II.—Port Steering Compass.*		III.—Starboard Steering Compass.†		IV.—Standard Compass.		V.—Azimuth Compass.		VI.—Dipping Needle Compass.‡				VII.—Fore Compass.§		VIII.—Mr. Gray's Azimuth Compass.	
	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Vibrations per Minute of Horizontal Needle.	Dip.	Ship's Head.	Deviation.	Ship's Head.	Deviation.
Ship upright.																		
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′		° ′	° ′	° ′	° ′	° ′
S. 2 0 E.	S. 2 0 E.	0 0	S. 1 0 W.	3 0 W.	South	2 0 W.	S. 4 30 E.	2 30 E.	S. 3 30 E.	1 30 E.	South	2 0 W.	23·8	53 0	S. 1 0 E.	1 0 W.	S. 11 30 W.	13 30 W.
N. 89 30 W.	S. 45 30 W.	45 0 E.	W.	0 30 E.	W.	0 30 E.	S. 70 0 W.	29 30 E.	S. 70 0 W.	19 30 E.	S. 72 30 W.	18 0 E.	19·0	54 30	W.	0 30 E.	S. 82 0 W.	8 30 E.
..	..	..	..	..	..	..	S. 69 0 W.	20 30 E.	S. 69 0 W.	20 30 E.	S. 72 0 W.	18 30 E.	..	..	..	..	..	..
N. 77 30 W.	..	..	..	..	..	..	..	..	..	..	S. 85 0 W.	17 30 E.	..	..	..	..	..	..
N. 70 0 W.	..	..	..	..	..	..	..	..	..	..	N. 85 0 W.	15 0 E.	..	..	..	..	..	..
N. 67 30 W.	S. 55 0 W.	57 0 E.	..	..	..	..	N. 84 30 W.	17 0 E.	N. 85 0 W.	17 30 E.	N. 82 30 W.	15 0 E.	..	..	..	..	..	..
N. 60 30 W.	..	..	..	..	..	..	..	..	..	..	N. 72 30 W.	12 0 E.	18·0	..	..	..	..	..
N. 47 0 W.	S. 74 0 W.	39 0 E.	N. 38 30 W.	8 30 W.	N. 45 0 W.	2 0 W.	N. 52 15 W.	5 15 E.	N. 51 30 W.	4 30 E.	N. 54 0 W.	7 0 E.	18·0	54 55	N. 43 0 W.	4 0 W.	N. 59 0 W	12 0 E.
N. 2 0 W.	N. 18 0 E.	20 0 W.	N. 4 0 E.	6 0 W.	N. 6 30 W.	4 30 E.	N. 6 30 E.	8 30 W.	N. 5 30 E.	7 30 W.	N. 1 15 W.	0 45 W.	17·0	54 55	North	2 0 W.	N. 13 30 W.	11 30 E.
N. 44 0 E.	S. 76 0 E.	60 0 W.	N. 47 0 E.	3 0 W.	N. 40 0 E.	4 0 E.	N. 57 0 E.	13 0 W.	N. 61 30 E.	17 30 W.	N. 55 15 E.	11 15 W.	18·0	54 30	N. 45 0 E.	1 0 W.	N. 41 0 E.	3 0 E.
S. 88 0 E.	S. 42 0 E.	46 0 W.	S. 83 30 E.	4 30 W.	S. 80 30 E.	7 30 W.	S. 70 0 E.	18 0 W.	S. 67 0 E.	21 0 W.	S. 77 30 E.	10 30 W.	20·5	54 30	S. 88 0 E.	0 0	S. 73 0 E.	15 0 W.
S. 90 0 E.	S. 45 0 E.	45 0 W.	..	..	..	..	S. 71 30 E.	18 30 W.	S. 69 0 E.	21 0 W.	S. 79 30 E.	10 30 W.	..	..	..	..	S. 74 0 E.	16 0 W.
S. 43 0 E.	..	..	..	..	..	..	S. 30 30 E.	12 30 W.	S. 28 30 E.	11 30 W.	S. 27 30 E.	15 30 W.	21·5	54 0	S. 43 30 E.	0 30 E.	S. 22 0 E.	21 0 W.
Ship heeling to Starboard.																		
S. 1 45 W.	..	..	..	..	..	..	S. 8 0 E.	9 45 E.	..	..	S. 4 0 E.	5 45 E.	..	..	S. 1 0 E.	2 45 E.	S. 5 0 W.	3 15 W.
Ship heeling 8° to Starboard.																		
S. 1 45 W.	S. 7 0 E.	8 45 E.	S. 8 0 W.	6 15 W.	S. 14 30 W.	12 45 W.	S. 10 30 E.	12 15 E.	S. 9 0 E.	10 45 E.	S. 5 0 E.	6 45 E.	24·0	54 0	S. 3 30 E.	5 15 E.	S. 9 30 W.	7 45 W.
..	..	..	..	..	..	..	S. 9 30 E.	11 15 E.	..	..	..	..	..	..	..	..	..	..
Ship heeling 11° to Starboard.																		
S. 1 45 W.	S. 8 30 E.	10 15 E.	S. 10 0 W.	8 15 W.	S. 17 0 W.	15 15 W.	S. 14 0 E.	15 45 E.	S. 12 0 E.	13 45 E.	S. 7 45 E.	9 30 E.	23·4	53 30	S. 5 0 E.	6 45 E.	South? (S. 11 0 W.)	(12 15 W.)
Ship heeling 12° 15′ to Starboard.																		
S. 1 45 W.	..	..	..	..	..	..	S. 15 0 E.	16 45 E.	S. 13 45 E.	15 30 E.	S. 8 0 E.	9 45 E.	..	..	S. 6 0 E.	7 45 E	..	..
S. 44 30 W.	S. 8 30 W.	36 0 E.	S. 49 30 W.	5 0 W.	S. 54 0 W.	9 30 W.	S. 17 30 W.	27 0 E.	S. 20 0 W.	24 30 E.	S. 23 0 W.	21 30 E.	21·0	53 30	..	..	S. 33 0 W. By Shore bearing -	11 30 E.
..	..	..	..	7 0 W.	..	11 30 W.	S. 14 0 W.	28 30 E.	S. 15 30 W.	27 0 E.	S. 21 0 W.	21 30 E.	..	..	S. 36 30 E.	6 0 E.	..	14 30 E.
																	..	..

Ship's Head, correct Magnetic.	I.—Compass above the Aft Side of the Round House.		II.—Aft Steering Compass.		III.—Starboard Steering Compass.		IV.—Compass.		V.—Azimuth Compass.		VI.—Dipping Needle Compass.				VII.—Azimuth Compass.		VIII.—Azimuth Compass.		Fore Hatch.	
	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Vibrations per Minute of Horizontal Needle.	Dip.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.
Ship upright.																				
S. 45 0 W.	S. 24 0 W.	21 0 E.	S. 44 0 W.	1 0 E.	S. 43 15 W.	1 45 E.	S. 29 0 W.	16 0 E.	S. 29 0 W.	16 0 E.	S. 34 0 W.	11 0 E.	21·5	54 0	S. 42 45 W.	2 15 E.	S. 45 0 W.	0 0	..	..
Ship heeling 10° to Port.																				
	S. 35 0 W.	10 0 E.	S. 35 0 W.	10 0 E.	S. 36 0 W.	9 0 E.	S. 37 0 W.	8 0 E.	S. 38 0 W.	7 0 E.	S. 42 15 W.	2 45 E.	21·5	53 30	S. 45 30 W.	0 30 W.	S. 39 0 W.	6 0 E.	S. 40 0 W.	5 0 E.
	..	..	..	..	..	..	..	..	..	..	*S. 35 0 W.	10 0 E.	..	..	..	..	..	..	..	..
South	S. 9 30 W.	9 30 W.	S. 8 30 E.	8 30 E.	S. 8 0 E.	8 0 E.	S. 8 30 W.	8 30 W.	S. 9 0 W.	9 0 W.	S. 13 0 W.	13 0 W.	22·5	53 45	S. 7 0 W.	7 0 W.	S. 6 0 W.	6 0 W.	S. 7 30 W.	7 30 W.
	..	..	..	..	..	..	..	..	..	..	S. 13 30 W.	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	*S. 5 0 W.	5 0 W.	..	..	..	..	..	..	..	..
S. 19 0 E.	S. 6 0 W.	25 0 W.	S. 21 30 E.	2 30 E.	S. 21 30 E.	2 30 E.	S. 3 0 E.	16 0 W.	S. 2 0 E.	17 0 W.	S. 3 30 E.	15 30 W.	..	..	S. 8 0 E.	11 0 W.	S. 5 0 E.	14 0 W.	S. 6 0 E.	13 0 W.
	S. 4 30 W.	23 30 W.	S. 18 0 E.	1 0 W.	S. 18 0 E.	1 0 W.	S. 3 30 E.	15 30 W.	S. 3 45 E.	15 15 W.	S. 4 30 E.	14 30 W.	..	..	..	..	..	..	..	..
S. 45 0 E.	S. 7 0 E.	38 0 W.	S. 46 30 E.	7 30 E.	S. 41 0 E.	4 0 W.	S. 21 0 E.	24 0 W.	S. 20 0 E.	25 0 W.	S. 11 30 E.	33 30 W.	21·0	53 0	S. 33 0 E.	12 0 W.	S. 26 0 E.	19 0 W.	S. 19 0 E.	26 0 W.
	..	..	*S. 40 15 E.	4 45 W.	*S. 37 0 E.	8 0 W.	..	..	..	..	*S. 18 30 E.	26 30 W.	..	..	..	..	..	..	..	..
East	S. 30 0 E.	60 0 W.	S. 87 30 E.	2 30 W.	S. 85 0 E.	5 0 W.	S. 62 45 E.	27 15 W.	S. 60 30 E.	29 30 W.	S. 60 30 E.	29 30 W.	17·0	53 45	S. 85 0 E.	5 0 W.	S. 72 30 E.	17 30 W.	S. 55 0 E.	35 0 W.
	..	..	*N. 86 0 E.	4 0 E.	*S. 84 0 E.	6 0 W.	..	..	..	..	*S. 65 30 E.	24 30 W.	..	..	..	..	..	..	..	..
N. 44 15 E.	S. 70 0 E.	65 45 W.	N. 46 30 E.	2 15 W.	N. 41 0 E.	3 15 E.	N. 45 0 E.	0 45 W.	S. 47 30 E.	3 15 W.	N. 33 30 E.	10 45 W.	13·8	54 0	N. 37 0 E.	7 15 E.	N. 45 30 E.	1 15 W.	N. 57 30 E.	13 15 W.
	..	..	*N. 37 30 E.	6 45 E.	*N. 37 30 E.	6 45 E.	..	..	..	..	*N. 44 0 E.	3 15 W.	..	..	..	..	..	..	..	..
North	N. 66 30 W.	66 30 E.	N. 6 0 E.	6 0 W.	North	0 0	N. 16 15 W.	16 15 E.	N. 15 30 W.	15 30 E.	N. 22 30 W.	22 30 E.	17·9	55 0	N. 8 30 W.	8 30 E.	N. 3 30 W.	3 30 E.	N. 24 30 W.	24 30 E.
	..	..	N. 0 45 W.	0 45 E.	N. 5 30 W.	5 30 E.	..	..	..	..	*N. 12 30 W.	12 30 E.	..	..	..	..	..	..	..	..
N. 45 0 W.	S. 86 0 W.	49 0 E.	N. 37 0 W.	8 0 W.	N. 41 0 W.	4 0 W.	N. 64 30 W.	19 30 E.	N. 62 0 W.	17 0 E.	N. 65 15 W.	20 15 E.	20·2	54 45	N. 48 30 W.	3 30 E.	N. 51 45 W.	6 45 E.	N. 66 0 W.	21 0 E.
	..	..	*N. 39 30 W.	5 30 W.	*N. 45 0 W.	0 0	..	..	..	..	*N. 60 45 W.	15 45 E.	..	..	..	..	..	..	..	..
West	S. 59 0 W.	31 0 E.	S. 87 45 W.	2 15 E.	S. 87 15 W.	2 45 E.	S. 72 30 W.	17 30 E.	N. 73 30 W.	16 30 E.	S. 73 30 W.	12 30 E.	22·0	54 15	S. 88 45 W.	1 15 E.	S. 80 0 W.	10 0 E.	S. 70 0 W.	20 0 E.
	..	..	*N. 88 30 W.	1 30 W.	*S. 87 0 W.	3 0 E.	..	..	..	..	*S. 78 30 W.	11 30 E.	..	..	..	..	..	..	..	..
Finished the above with 9° heel to Port. The next observations were made with Ship heeling slightly to Starboard.																				
S. 89 30 W.	S. 45 0 W.	44 30 E.	N. 87 30 W.	2 0 E.	S. 89 30 W.	0 0	S. 68 30 W.	21 0 E.	S. 69 0 W.	20 30 E.	S. 73 30 W.	16 0 E.	..	..	S. 88 30 W.	1 0 E.	S. 77 30 W.	12 0 E.	S. 75 0 W.	14 0 E.
Ship heeling 10° to Starboard.																				
N. 89 30 W. to S. 89 30 W.	S. 23 0 W.	62 0 E.	West	0 0	West	0 0	S. 59 0 W.	31 0 E.	S. 60 0 W.	30 0 E.	S. 66 30 W.	23 30 E.	17·5	54 15	S. 89 0 W.	1 0 E.	S. 77 30 W.	12 30 E.	S. 73 0 W.	17 0 E.
	..	..	..	..	..	..	..	..	..	..	*S. 70 15 W.	19 45 E.	..	..	..	..	..	..	..	..
N. 45 30 W.	N. 57 0 W.	11 30 E.	N. 41 0 W.	4 30 W.	N. 47 30 W.	2 0 E.	N. 31 30 W.	14 0 W.	N. 32 30 W.	13 0 W.	N. 10 30 W.	5 0 W.	15·2	54 45	N. 37 15 W.	8 15 W.	N. 22 0 W.	23 30 W.	N. 63 30 W.	18 0 E.
	..	..	*N. 29 0 W.	16 30 W.	*N. 44 0 W.	1 30 W.	..	..	..	..	*N. 45 0 W.	0 30 W.	..	..	..	..	..	..	..	..
North	N. 67 0 E.	67 0 E.	North	0 0	N. 9 30 W.	9 30 E.	N. 28 0 E.	28 0 W.	N. 25 30 E.	25 30 W.	N. 17 0 E.	17 0 W.	18·4	54 45	N. 7 15 E.	7 15 W.	N. 28 0 E.	28 0 W.	N. 7 0 W.	7 0 E.
	..	..	*N. 14 0 E.	14 0 W.	N. 6 0 W.	6 0 E.	..	..	..	..	*N. 11 0 E.	11 0 W.	..	..	..	..	..	..	..	..
N. 45 0 E.	S. 81 30 E.	52 20 W.	N. 42 0 E.	2 10 E.	N. 31 30 E.	12 40 E.	N. 66 30 E.	22 20 W.	N. 67 0 E.	22 50 W.	N. 62 0 E.	17 40 W.	19·8	54 45	N. 48 15 E.	4 5 W.	N. 65 0 E.	20 50 W.	N. 63 30 E.	19 20 W.
N. 44 0 E.	..	..	*N. 51 15 E.	7 5 W.	*N. 37 0 E.	7 10 E.	..	..	..	..	*N. 57 15 E.	13 5 W.	..	..	..	..	..	..	..	..
N. 43 30 E. say N. 44 10 E.																				
S. 89 30 E.	†S. 54 0 E.	35 30 W.	†S. 82 0 E.	7 30 E.	†S. 79 30 E.	10 0 W.	S. 74 30 E.	15 0 W.	S. 73 0 E.	16 30 W.	S. 74 0 E.	15 30 W.	20·6	54 15	S. 86 45 E.	2 45 W.	S. 78 15 E.	11 15 W.	S. 63 30 E.	26 0 W.
	..	..	*†S. 85 30 E.	4 0 E.	*†S. 81 0 E.	8 30 W.	..	..	..	..	*S. 75 15 E.	14 15 W.	..	..	..	..	..	..	..	..
S. 43 0 E.	S. 31 30 E.	11 30 W.	S. 33 30 E.	9 30 W.	S. 30 0 E.	13 0 W.	S. 41 45 E.	1 15 W.	S. 39 45 E.	3 1 W.	S. 38 45 E.	4 15 W.	22·6	54 0	S. 43 30 E.	0 30 E.	S. 44 0 E.	1 0 E.	S. 29 0 E.	14 0 W.
	..	..	*S. 43 30 E.	0 30 E.	*S. 33 0 E.	10 0 W.	..	..	..	..	*S. 37 0 E.	6 0 W.	..	..	S. 42 45 E.	0 15 W.	..	..	.	..

* In all the observations marked thus, a vertical magnet was introduced for the purpose of counteracting the effect of the heeling of the ship. The vertical magnets under the steering compasses were introduced by Mr. Gray. The position of the magnets was determined while ship's head was S.W., and it was agreed that they should be replaced in the same position each time the ship was held steady for making observations.

† The stern of the ship was here nearly touching a large iron steamer on the West side of the dock.

DEVIATIONS of the COMPASSES of the Steam Ship "CITY of BALTIMORE," as obtained by drawing a fair Curve through Observations recorded in the previous Tables.

Ship's Head by each Compass (disturbed).	I. Compass placed above the Aft Side of the Round House.			II. Port Steering Compass. (Compensated.)					III. Starboard Steering Compass. (Compensated.)					IV. Standard C
				10° Heel to Port.		Ship Upright.	10° Heel to Starboard.		10° Heel to Port.		Ship Upright.	10° Heel to Starboard.		
	Heel to Port.	Upright.	Heel to Starboard.	With Vertical Magnet.	Without Vertical Magnet.		Without Vertical Magnet.	With Vertical Magnet.	With Vertical Magnet.	Without Vertical Magnet.		Without Vertical Magnet.	With Vertical Magnet.	Heel to Port.	Upright
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N.	40 0 E.	10 0 W.	54 20 W.	1 15 E.	7 0 W.	6 30 W.	0 0	16 30 W.	6 0 E.	0 0	5 15 E.	11 15 E.	6 50 E.	13 20 E.	7 30 W
N. by E.	21 0 E.	23 40 W.	61 0 W.	3 0 E.	5 25 W.	5 25 W.	1 0 E.	14 45 W.	6 35 E.	1 35 E.	5 50 E.	12 40 E.	7 35 E.	10 40 E.	8 50 W
N.N.E.	0 0	35 0 W.	65 10 W.	4 35 E.	4 20 W.	4 30 W.	1 40 E.	12 45 W.	7 0 E.	2 30 E.	5 30 E.	13 0 E.	7 55 E.	7 30 E.	9 50 W
N.E. by N.	21 0 W.	45 0 W.	67 0 W.	5 50 E.	3 10 W.	3 50 W.	2 0 E.	10 40 W.	6 40 E.	2 40 E.	4 40 E.	12 45 E.	7 45 E.	3 0 E.	11 15 W
N.E.	38 30 W.	52 0 W.	65 40 W.	6 50 E.	2 30 W.	3 15 W.	2 15 E.	8 25 W.	5 45 E.	2 15 E.	3 20 E.	11 35 E.	6 45 E.	1 5 W.	11 50 W
N.E. by E.	52 30 W.	57 0 W.	61 10 W.	7 10 E.	1 40 W.	2 40 W.	2 0 E.	6 0 W.	3 40 E.	0 55 E.	1 30 E.	9 30 E.	5 40 E.	5 30 W.	13 0 W
E.N.E.	62 0 W.	59 0 W.	55 0 W.	6 45 E.	1 15 W.	2 35 W.	1 25 E.	3 50 W.	1 5 E.	0 30 W.	0 30 W.	6 50 E.	3 45 E.	10 45 W.	14 10 W
E. by N.	66 40 W.	58 40 W.	48 40 W.	5 25 E.	1 35 W.	2 10 W.	0 5 E.	1 50 W.	1 55 W.	2 35 W.	2 50 W.	3 20 E.	1 15 E.	15 5 W.	15 5 W
E.	68 0 W.	57 0 W.	42 50 W.	3 0 E.	2 0 W.	3 45 W.	1 25 W.	0 20 W.	4 45 W.	4 30 W.	5 30 W.	0 35 W.	0 50 W.	19 10 W.	17 0 W
E. by S.	67 20 W.	53 30 W.	36 20 W.	0 20 E.	2 35 W.	5 0 W.	3 25 W.	0 20 E.	7 15 W.	5 50 W.	7 55 W.	4 10 W.	3 35 W.	23 0 W.	18 10 W
E.S.E.	64 0 W.	47 20 W.	29 20 W.	2 0 W.	2 20 W.	6 0 W.	5 20 W.	0 45 E.	9 5 W.	6 35 W.	10 0 W.	7 0 W.	5 55 W.	26 25 W.	18 50 W
S.E. by E.	57 30 W.	40 0 W.	21 20 W.	4 0 W.	1 25 W.	6 30 W.	7 0 W.	1 25 E.	9 30 W.	6 40 W.	11 20 W.	9 15 W.	7 25 W.	27 50 W.	18 30 W
S.E.	50 0 W.	32 20 W.	13 10 W.	4 45 W.	0 10 W.	6 55 W.	8 5 W.	2 35 E.	8 50 W.	4 45 W.	11 30 W.	10 50 W.	8 30 W.	28 15 W.	17 30 W
S.E. by S.	42 30 W.	24 0 W.	4 0 W.	3 45 W.	1 50 E.	6 45 W.	8 40 W.	4 15 E.	7 10 W.	1 50 W.	10 45 W.	12 10 W.	9 25 W.	27 10 W.	15 5 W
S.S.E.	35 0 W.	15 30 W.	4 20 E.	2 0 W.	4 0 E.	6 10 W.	8 50 W.	7 0 E.	4 15 W.	1 40 E.	8 25 W.	13 25 W.	9 45 W.	24 25 W.	11 20 W
E. by S.	27 0 W.	7 30 W.	14 20 E.	0 45 E.	6 0 E.	5 10 W.	8 45 W.	10 0 E.	0 30 W.	5 15 E.	5 35 W.	14 10 W.	9 10 W.	20 0 W.	6 40 W
S.	17 30 W.	1 0 E.	24 0 E.	3 45 E.	8 10 E.	3 20 W.	8 5 W.	12 30 E.	2 50 E.	7 30 E.	2 0 W.	14 50 W.	8 0 W.	14 0 W.	0 20 W
S. by W.	10 0 W.	9 30 E.	32 20 E.	5 40 E.	9 50 E.	1 15 W.	7 15 W.	13 45 E.	5 30 E.	8 30 E.	0 20 E.	15 0 W.	6 25 W.	6 50 W.	7 10 E.
S.S.W.	3 0 W.	17 0 E.	40 50 E.	6 40 E.	10 25 E.	0 25 E.	5 50 W.	13 50 E.	6 45 E.	9 10 E.	2 0 E.	13 50 W.	3 50 W.	0 30 E.	14 0 E.
S.W. by S.	5 0 E.	25 0 E.	48 40 E.	6 45 E.	10 5 E.	1 40 E.	4 25 W.	13 0 E.	7 15 E.	9 10 E.	2 45 E.	12 10 W.	1 20 W.	6 30 E.	18 50 E.
S.W.	12 0 E.	32 0 E.	55 20 E.	6 25 E.	9 0 E.	2 30 E.	3 0 W.	11 30 E.	7 30 E.	8 30 E.	3 0 E.	9 40 W.	0 45 E.	11 45 E.	21 15 E.
S.W. by W.	20 0 E.	39 0 E.	60 0 E.	5 30 E.	7 50 E.	2 50 E.	2 0 W.	9 0 E.	6 45 E.	7 30 E.	3 0 E.	6 55 W.	1 20 E.	14 45 E.	21 45 E.
W.S.W.	26 30 E.	46 0 E.	64 0 E.	3 35 E.	6 0 E.	2 30 E.	1 10 W.	5 50 E.	5 50 E.	6 0 E.	2 30 E.	4 0 W.	1 20 E.	16 40 E.	21 10 E.
W. by S.	34 0 E.	51 20 E.	63 0 E.	1 30 E.	4 0 E.	1 40 E.	0 40 W.	2 15 E.	4 5 E.	4 22 E.	1 30 E.	2 0 W.	0 50 E.	18 0 E.	19 50 E.
W.	41 0 E.	56 0 E.	57 30 E.	0 40 W.	1 35 E.	0 20 E.	0 30 W.	1 5 W.	2 45 E.	2 30 E.	0 40 E.	0 20 W.	0 10 E.	19 0 E.	17 45 E
W. by N.	46 0 E.	58 0 E.	48 0 E.	3 0 W.	0 45 W.	1 15 W.	1 15 W.	5 0 W.	1 30 E.	0 30 E.	0 15 W.	0 30 E.	0 50 W.	19 10 E.	15 0 E
W.N.W.	53 20 E.	56 0 E.	37 0 E.	5 0 W.	3 15 W.	3 45 W.	2 30 W.	8 30 W.	0 30 E.	0 55 W.	0 55 W.	0 55 E.	1 45 W.	19 25 E.	11 45 E.
N.W. by W.	59 0 E.	51 30 E.	21 30 E.	5 50 W.	5 15 W.	5 50 W.	3 45 W.	11 30 W.	0 0	2 45 W.	1 40 W.	1 30 E.	2 0 W.	19 15 E.	8 0 E.
N.W.	63 30 E.	44 0 E.	4 0 E.	5 50 W.	6 50 W.	7 20 W.	4 25 W.	13 40 W.	0 20 E.	3 55 W.	1 45 W.	2 40 E.	1 20 W.	18 40 E.	4 0 E
N.W. by N.	66 40 E.	33 0 E.	14 0 W.	5 0 W.	7 50 W.	7 50 W.	4 20 W.	15 35 W.	1 15 E.	3 50 W.	0 55 W.	4 5 E.	0 5 E.	18 0 E.	0 30 E.
N.N.W.	63 30 E.	20 30 E.	30 0 W.	3 40 W.	8 10 W.	7 55 W.	3 55 W.	16 40 W.	2 40 E.	3 35 W.	0 40 E.	6 0 E.	1 45 E.	17 0 E.	2 45 W
N. by W.	54 30 E.	6 0 E.	43 30 W.	2 0 W.	7 40 W.	7 15 W.	2 30 W.	17 0 W.	4 0 E.	2 15 W.	3 20 E.	9 0 E.	4 15 E.	15 30 E.	5 20 W

MAGNETIC CO-EFFICIENTS.

	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
A	− 2 23	− 2 13	− 4 19	+ 1 10	+ 0 5	− 3 28	− 3 1	− 1 45	+ 1 21	+ 0 57	− 1 8	− 1 24	− 0 42	− 0 2	− 1 19
B	−54 14	−55 12	−46 54	+ 1 16	− 1 50	− 1 57	+ 0 6	− 0 31	− 3 51	− 3 0	− 3 16	+ 1 21	− 0 27	−19 58	−18 17
C	+24 15	− 3 51	−36 22	− 0 45	− 7 4	− 1 52	+ 3 29	−13 27	+ 2 4	− 2 15	+ 3 33	+12 36	+ 6 2	+12 48	− 3 53
D	− 9 54	− 7 56	− 0 1	+ 6 2	+ 3 32	+ 3 26	+ 2 52	+ 6 39	+ 5 9	+ 4 47	+ 4 58	+ 2 37	+ 4 21	+ 5 0	+ 5 42
E	+12 30	− 1 41	−11 26	+ 0 28	+ 0 28	− 1 36	− 1 33	− 0 33	+ 2 35	+ 2 16	+ 1 44	− 0 25	0 0	+ 0 3	− 1 28

eviations of the Compasses of the Steam Ship "City of Baltimore" as obtained by drawing a fair Curve through the Observations recorded in the preceding Tables—*continued.*

V. Azimuth Compass.			VI. Dipping Needle Compass.					VII. Fore Compass (compensated).			VIII. Mr. Gray's Azimuth Compass.			IX. Compass placed over the Fore Hatch.	
			10° Heel to Port.		Ship upright.	10° Heel to Starboard.									
Heel to Port.	Ship upright.	Heel to Starboard.	With Vertical Magnet.	Without Vertical Magnet.		Without Vertical Magnet.	With Vertical Magnet.	Heel to Port.	Ship upright.	Heel to Starboard.	Heel to Port.	Ship upright.	Heel to Starboard.	Heel to Port.	Heel to Starboard.
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
12 50 E.	6 45 W.	23 20 W.	11 30 E.	20 10 E.	0 45 W.	15 5 W.	10 0 W.	8 50 E.	2 0 W.	8 0 W.	3 45 E.	10 30 E.	27 50 W.	15 0 E.	4 20 E.
9 40 E.	8 15 W.	25 0 W.	9 50 E.	19 30 E.	2 40 W.	16 30 W.	11 15 W.	8 50 E.	1 30 W.	7 30 W.	3 0 E.	8 50 E.	28 35 W.	9 40 E.	0 10 E.
6 0 E.	10 0 W.	25 30 W.	7 45 E.	14 40 E.	5 0 W.	17 25 W.	12 0 W.	8 10 E.	1 15 W.	6 20 W.	2 0 E.	7 20 E.	28 20 W.	3 50 E.	4 5 W.
1 45 E.	12 0 W.	25 25 W.	5 0 E.	10 40 E.	7 20 W.	18 10 W.	13 0 W.	7 25 E.	1 15 W.	5 20 W.	0 45 E.	5 5 E.	27 25 W.	1 50 W.	8 45 W.
2 45 W.	14 10 W.	25 20 W.	1 40 E.	6 0 E.	9 15 W.	18 40 W.	13 25 W.	6 0 E.	1 0 W.	4 35 W.	1 10 W.	2 30 E.	25 30 W.	7 25 W.	13 0 W.
7 25 W.	16 30 W.	24 35 W.	1 35 W.	0 45 E.	11 25 W.	18 30 W.	13 30 W.	4 15 E.	0 30 W.	3 35 W.	3 45 W.	0 30 W.	23 0 W.	12 50 W.	16 50 W.
12 30 W.	18 15 W.	23 0 W.	7 0 W.	4 40 E.	14 0 W.	18 20 W.	14 0 W.	1 55 E.	0 20 W.	3 30 W.	6 55 W.	4 10 W.	20 20 W.	17 50 W.	20 0 W.
7 10 W.	19 50 W.	21 40 W.	12 0 W.	11 50 E.	16 20 W.	18 15 W.	14 15 W.	1 0 W.	0 0	3 30 W.	9 45 W.	7 40 W.	17 5 W.	22 20 W.	23 0 W.
1 30 W.	20 40 W.	20 15 W.	16 40 W.	16 40 E.	18 15 W.	17 30 W.	14 35 W.	3 50 W.	0 0	3 50 W.	13 0 W.	11 15 W.	14 0 W.	26 45 W.	25 10 W.
5 30 W.	21 20 W.	18 10 W.	20 15 W.	22 10 E.	19 40 W.	16 20 W.	14 40 W.	6 15 W.	0 5 W.	3 15 W.	16 0 W.	14 20 W.	11 0 W.	30 35 W.	26 30 W.
8 30 W.	21 30 W.	14 30 W.	24 20 W.	27 10 E.	20 50 W.	14 0 W.	13 40 W.	8 35 W.	0 30 W.	2 30 W.	18 30 W.	17 20 W.	7 0 W.	33 25 W.	26 30 W.
0 0 W.	20 50 W.	10 30 W.	26 55 W.	31 0 E.	20 50 W.	10 10 W.	11 50 W.	10 20 W.	0 55 W.	1 15 W.	20 0 W.	19 10 W.	3 0 W.	34 50 W.	24 25 W.
0 0 W.	19 40 W.	5 45 W.	28 30 W.	33 40 E.	20 0 W.	6 10 W.	9 5 W.	11 40 W.	0 55 W.	0 5 E.	20 15 W.	20 40 W.	1 30 E.	34 30 W.	20 20 W.
8 50 W.	17 10 W.	0 20 E.	29 10 W.	35 5 E.	18 0 W.	1 10 W.	4 0 W.	12 0 W.	1 10 W.	1 50 E.	19 55 W.	21 20 W.	6 25 E.	32 20 W.	15 30 W.
3 20 W.	13 15 W.	6 25 E.	27 30 W.	35 15 E.	14 15 W.	3 30 E.	1 30 E.	12 10 W.	1 20 W.	3 30 E.	18 20 W.	20 50 W.	12 0 E.	27 35 W.	9 50 W.
1 45 W.	7 50 W.	13 0 E.	22 0 W.	33 0 E.	7 20 W.	8 30 E.	7 0 E.	11 30 W.	1 30 W.	5 0 E.	15 55 W.	19 45 W.	16 40 E.	20 20 W.	3 50 W.
5 0 W.	0 15 E.	19 30 E.	11 15 W.	26 30 E.	1 30 W.	14 0 E.	11 45 E.	9 30 W.	1 0 W.	6 25 E.	12 0 W.	17 30 W.	20 30 E.	14 20 W.	1 5 E.
7 30 W.	7 50 E.	24 40 E.	0 40 W.	16 0 E.	3 45 E.	18 45 E.	15 30 E.	6 40 W.	0 15 W.	6 45 E.	6 30 W.	14 5 W.	23 0 E.	7 15 W.	5 5 E.
0 0	13 50 E.	28 0 E.	5 45 E.	6 55 E.	8 50 E.	22 15 E.	19 0 E.	4 15 W.	0 40 E.	7 0 E.	1 0 W.	9 30 W.	24 0 E.	1 10 W.	9 0 E.
5 35 E.	18 0 E.	30 0 E.	9 45 E.	0 45 E.	13 0 E.	24 20 E.	21 10 E.	2 15 W.	1 30 E.	7 0 E.	3 55 E.	4 40 W.	23 45 E.	3 50 E.	11 15 E.
0 0 E.	20 50 E.	30 40 E.	12 30 E.	3 45 E.	16 0 E.	25 10 E.	21 45 E.	0 40 W.	2 20 E.	6 30 E.	7 40 E.	0 0	22 35 E.	9 25 E.	13 30 E.
3 30 E.	21 50 E.	29 45 E.	13 55 E.	7 0 E.	17 30 E.	25 0 E.	21 20 E.	0 0	2 10 E.	5 0 E.	9 30 E.	3 30 E.	20 5 E.	14 5 E.	15 0 E.
5 40 E.	21 25 E.	27 30 E.	15 10 E.	10 0 E.	18 0 E.	23 25 E.	19 55 E.	0 40 E.	1 55 E.	3 30 E.	10 5 E.	6 0 E.	15 45 E.	18 50 E.	16 30 E.
3 50 E.	20 20 E.	24 10 E.	15 45 E.	12 50 E.	17 45 E.	20 40 E.	17 45 E.	1 0 E.	1 10 E.	2 0 E.	10 15 E.	7 55 E.	12 15 E.	23 15 E.	17 30 E.
7 15 E.	17 45 E.	19 25 E.	15 55 E.	15 55 E.	15 55 E.	17 5 E.	15 15 E.	1 15 E.	0 30 E.	0 20 E.	10 0 E.	9 20 E.	7 0 E.	25 50 E.	18 0 E.
7 20 E.	14 40 E.	13 40 E.	15 50 E.	18 0 E.	14 0 E.	12 45 E.	11 45 E.	1 50 E.	0 40 W.	1 55 W.	9 30 E.	9 30 E.	1 20 E.	30 0 E.	18 10 E.
7 25 E.	10 45 E.	6 40 E.	16 0 E.	20 0 E.	11 50 E.	7 30 E.	7 30 E.	2 15 E.	2 25 W.	4 20 W.	8 20 E.	8 20 E.	4 30 W.	31 40 E.	17 50 E.
7 0 E.	6 45 E.	0 25 W.	15 40 E.	21 20 E.	9 0 E.	2 10 E.	2 10 E.	2 45 E.	3 40 W.	6 0 W.	7 15 E.	7 15 E.	10 0 W.	31 45 E.	17 5 E.
3 35 E.	3 0 E.	7 15 W.	15 0 E.	22 0 E.	7 0 E.	3 0 W.	3 0 W.	3 40 E.	4 40 W.	7 30 W.	6 0 E.	6 0 E.	15 20 W.	30 0 E.	15 45 E.
1 10 E.	0 20 W.	13 15 W.	14 0 E.	22 30 E.	4 50 E.	7 20 W.	7 20 W.	4 50 E.	4 40 W.	8 10 W.	5 25 E.	5 25 E.	19 40 W.	27 30 E.	13 45 E.
1 40 E.	3 0 W.	18 15 W.	13 25 E.	22 40 E.	2 30 E.	10 35 W.	10 35 W.	6 20 E.	4 25 W.	8 45 W.	4 45 E.	4 45 E.	23 15 W.	23 45 E.	11 25 E.
1 15 E.	5 15 W.	21 45 W.	12 30 E.	21 50 E.	1 0 E.	13 10 W.	13 10 W.	7 45 E.	3 30 W.	8 50 W.	3 50 E.	3 50 E.	25 50 W.	20 20 E.	8 30 E.

Magnetic Co-efficients.

° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
1 35	− 2 30	− 1 34	− 0 2	− 1 1	− 1 27	− 0 28	− 0 21	− 0 43	− 0 55	− 1 22	− 2 21	− 2 57	− 3 52	− 0 15	− 0 45
20 14	−19 48	−19 23	−17 46	−17 28	−17 46	−16 24	−14 40	− 2 44	0 0	− 1 25	−11 59	− 9 13	−10 30	−27 7	−21 41
12 46	− 3 50	−20 35	+11 31	+21 33	+ 1 9	−13 57	−11 16	+ 8 25	− 1 30	− 6 49	+ 6 58	+11 28	−23 26	+15 21	+ 2 10
5 27	+ 6 2	+ 4 39	+ 7 34	+ 5 35	+ 4 58	+ 4 1	+ 5 7	+ 3 23	+ 1 42	+ 2 18	+ 5 6	+ 4 23	+ 2 38	+ 1 35†	+ 1 24†
0 26	− 0 41	− 0 56	+ 0 2	− 0 46	− 0 28	− 0 9	− 0 11	+ 0 24	− 0 55	+ 0 22	− 1 12	− 1 54	+ 0 2	+ 0 5	+ 1 40

ion of this compass was altered on the second day. The observations made with ship upright are, therefore, not comparable with those made when the ship

seen that the + D for this compass is very small. See another example of this effect of cut beams at page 57, in the compass placed over the after hatch of Donard," in which this co-efficient is only 0° 24′.

DIRECTION and AMOUNT of the MAGNETIC FORCE of the Steam Ship "CITY OF BALTIMORE," at the STATION of the DIPPING NEEDLE COMPASS, 76 ft. 9 in. before the Rudder Head, 3 ft. above the Deck-house, and about 10 ft. 6 in. above the Deck.

No. of Experiment.	Ship's Head, correct Magnetic.	Ship's Head by Compass.	Observed Deviation.	Deviation corrected for Index Error.	Vibrations of Horizontal Needle in 30 Seconds.	Magnetic Force in direction of Needle.	Horizontal Force to North.	Disturbing Force to North.	Disturbing Force to East.	Total horizontal disturbing Force.	Azimuth of Ship's Force.	Starboard Angle.	Observed Dip.†	Ship's Vertical Force in Terms of Earth's Horizontal Force.	Approximate	
															Ship's total Magnetic Force.	Angle from the Vertical of Ship's Magnetic Force.
Ship upright.																
1	N. 0 30 W.	N. 1 15 W.	0 45 W.	0 45 E.	8·5	·723	·7229	−·2771	·0095	·277	N. 178 0 E.	177 30	54 45	1·139	1·17	13
2	N. 45 30 E.	N. 55 15 E.	11 15 W.	9 45 W.	9·0	·810	·7983	−·2017	−·1267	·238	N. 212 0 E.	166 30	54 30	1·095	1·12	12
3	N. 93 15 E.	N. 112 30 E.	20 45 W.	19 15 W.	10·25	1·051	·9923	−·0077	−·3465	·347	N. 269 0 E.	175 45	54 30	1·095	1·15	17
4	N. 138 0 E.	N. 152 30 E.	16 0 W.	14 30 W.	10·75	1·156	1·1191	·1191	−·2395	·311	N. 292 0 E.	154 0	54 0	1·033	1·08	17
5	N. 180 45 E.	N. 180 0 E.	0 45 W.	0 45 E.	11·75	1·381	1·3809	·3809	·0181	·381	N. 2 30 E.	181 45	53 0	·898	·975	23
6	N. 228 15 E.	N. 214 0 E.	12 45 E.	14 15 E.	10·75	1·156	1·1204	·1204	·2846	·309	N. 67 0 E.	198 45	54 0	1·033	1·08	16
7	N. 272 0 E.	N. 252 30 E.	18 0 E.	19 30 E.	9·53	·908	·8559	−·1441	·3031	·336	N. 115 30 E.	293 30	54 30	1·095	1·14	17
8	N. 316 30 E.	N. 306 0 E.	9 0 E.	10 30 E.	9·05	·819	·8053	−·1947	·1498	·246	N. 142 15 E.	185 45	54 45	1·139	1·16	12
..	..	..	..	..	..	..	..	..	..	·306	..	176 11	..	1·066	1·11	17
Ship heeling 10° to Port.																
1	N. 1 0 E.	N. 337 30 E.	22 30 E.	23 30 E.	8·95	·801	·7346	−·2654	·3194	·416	N. 129 45 E.	128 45	55 0	1·177	1·24	1
2	N. 45 0 E.	N. 33 30 E.	10 30 E.	11 30 E.	6·9	·476	·4664	−·5336	·0949	·544	N. 169 30 E.	124 30	54 0	1·034	1·17	2
3	N. 91 0 E.	N. 119 30 E.	29 30 E.	28 30 W.	8·35	·697	·6125	−·3875	−·3326	·510	N. 229 30 E.	138 30	53 45	1·000	1·13	2
4	N. 136 0 E.	N. 168 30 E.	33 30 W.	32 30 W.	10·5	1·103	·9303	−·0697	−·5926	·596	N. 263 30 E.	127 30	53 30	·966	1·14	3
5	N. 179 0 E.	N. 193 30 E.	15 30 W.	14 30 W.	11·25	1·266	1·2256	·2256	−·3170	·390	N. 305 30 E.	126 30	53 45	1·000	1·08	2
6	N. 225 0 E.	N. 232 30 E.	1 30 E.	2 30 E.	10·75	1·156	1·1548	·1548	·0504	·163	N. 18 0 E.	153 0	53 30	·966	·98	
7	N. 271 0 E.	N. 257 30 E.	12 30 E.	13 30 E.	11·0	1·210	1·1766	·1766	·2824	·333	N. 58 0 E.	147 0	54 45	1·140	1·19	1
8	N. 316 15 E.	N. 294 45 E.	20 15 E.	21 30 E.	10·1	1·020	·9490	−·0510	·3738	·377	N. 97 30 E.	141 15	54 45	1·140	1·20	1
..	..	..	..	..	..	..	..	..	..	·416	..	136 0	..	1·053	1·14	2
Ship heeling 10° to Starboard.																
1	N. 0 45 E.	N. 17 0 E.	17 0 W.	16 15 W.	9·2	·846	·8122	−·1878	−·2367	·300	N. 232 0 E.	231 15	54 45	1·140	1·18	
2	N. 44 15 E.	N. 62 0 E.	18 30 W.	17 45 W.	9·95	·990	·9429	−·0571	−·3019	·324	N. 260 0 E.	215 45	54 45	1·140	1·19	
3	N. 91 0 E.	N. 106 0 E.	15 45 W.	15 0 W.	10·3	1·061	1·0258	·0258	−·2668	·268	N. 275 30 E.	184 30	54 15	1·069	1·10	
4	N. 138 45 E.	N. 141 15 E.	3 0 W.	2 45 W.	11·3	1·277	1·2755	·2755	−·0613	·282	N. 347 30 E.	208 45	54 0	1·034	1·08	
5	N. 183 15 E.	N. 172 30 E.	10 0 E.	10 45 E.	11·27	1·260	1·2380	·2380	·2350	·335	N. 44 45 E.	221 30	53 30	·966	1·02	
6	N. 224 45 E.	N. 203 0 E.	21 0 E.	21 45 E.	10·5	1·163	1·0245	·0245	·4088	·410	N. 86 30 E.	221 45	53 30	·966	1·05	
7	N. 271 0 E.	N. 246 30 E.	23 30 E.	24 30 E.	8·75	·766	·6971	−·3029	·3177	·439	N. 133 45 E.	222 45	54 15	1·069	1·16	
8	N. 314 45 E.	N. 319 30 E.	5 0 W.	4 15 W.	7·7	·593	·5914	−·4086	·0439	·412	N. 174 0 E.	219 15	54 45	1·140	1·21	
..	..	..	..	..	..	..	..	..	..	·346	..	214 15	..	1·065	1·12	

* Vibrations on Shore, 10 in 30 Seconds. † Dip on Shore with weighted Needle, 45°.

By laying off the magnetic force observations recorded above as ordinates from a line of which the abscissæ represent the azimuth of ship's head by compass, and by passing a fair curve as nearly as possible through the ends of these ordinates, the elements for the following tables are obtained. These tables are arranged to show the ship's horizontal and vertical magnetic force at the station of the dipping needle compass for ship's head correct magnetic on each second point of the compass. The resultants for amount and direction of ship's total magnetic force are calculated.

Ship's Head, Correct Magnetic.		Deviation.	Deviation corrected for supposed Index Error.	Ship's Horizontal Force.	Approximate Azimuth of Ship's Force.	Approximate Starboard Angle.	Vertical Force.	Resultants.	
In Points.	In Degrees.							Total Force.	At Angle from the Vertical.
Ship upright.									
	° ′	° ′	° ′		° ′	° ′			° ′
0	N. 0 0 E.	0 50 W.	0 40 E.	·261	N. 178 0 E.	178 0	1·141	1·175	12 53
2	N. 22 30 E.	6 0 W.	4 30 W.	·260	N. 193 30 E.	171 0	1·133	1·162	12 55
4	N. 45 0 E.	11 20 W.	9 50 W.	·265	N. 210 0 E.	165 0	1·113	1·144	13 24
6	N. 67 30 E.	17 0 W.	15 30 W.	·289	N. 232 20 E.	164 50	1·091	1·129	14 50
8	N. 90 0 E.	20 20 W.	18 50 W.	·322	N. 254 45 E.	164 45	1·064	1·112	16 50
10	N. 112 30 E.	20 0 W.	18 30 W.	·340	N. 274 45 E.	162 15	1·031	1·086	18 15
12	N. 135 0 E.	16 20 W.	14 50 W.	·335	N. 296 20 E.	161 20	1·010	1·064	18 21
14	N. 157 30 E.	8 50 W.	7 20 W.	·309	N. 328 0 E.	170 30	·994	1·041	17 16
16	N. 180 0 E.	1 20 W.	0 10 E.	·298	N. 1 0 E.	181 0	·988	1·032	16 47
18	N. 202 30 E.	6 0 E.	7 30 E.	·311	N. 32 30 E.	190 0	·996	1·043	17 22
20	N. 225 0 E.	12 40 E.	14 10 E.	·335	N. 61 10 E.	196 10	1·018	1·072	18 13
22	N. 247 30 E.	16 30 E.	18 0 E.	·340	N. 83 45 E.	196 15	1·050	1·104	17 57
24	N. 270 0 E.	17 40 E.	19 10 E.	·329	N. 107 15 E.	197 15	1·082	1·131	16 55
26	N. 292 30 E.	14 30 E.	16 0 E.	·305	N. 131 45 E.	199 15	1·112	1·153	15 20
28	N. 315 0 E.	8 10 E.	9 40 E.	·281	N. 153 20 E.	198 20	1·134	1·168	13 55
30	N. 337 30 E.	3 0 E.	4 30 E.	·268	N. 166 40 E.	189 10	1·144	1·175	13 11
...	...	...	...	·303	...	180 19	1·069	1·112	15 54
Ship heeling 10° to Port.									
	° ′	° ′	° ′		° ′	° ′			° ′
0	0 0 E.	22 0 E.	23 0 E.	·401	N. 126 40 E.	126 40	1·154	1·222	19 10
2	22 30 E.	19 0 E.	20 0 E.	·425	N. 143 30 E.	121 0	1·114	1·192	20 53
4	N. 45 0 E.	10 0 E.	11 0 E.	·451	N. 166 0 E.	121 0	1·076	1·175	23 42
6	N. 67 30 E.	10 0 W.	9 0 W.	·465	N. 191 0 E.	123 30	1·041	1·140	24 4
8	N. 90 0 E.	29 0 W.	28 0 W.	·504	N. 219 0 E.	129 0	1·000	1·120	26 45
10	N. 112 30 E.	34 30 W.	33 30 W.	·540	N. 241 45 E.	129 15	·972	1·112	29 3
12	N. 135 0 E.	32 50 W.	31 50 W.	·577	N. 262 20 E.	127 20	·960	1·120	31 0
14	N. 157 30 E.	24 30 W.	23 30 W.	·538	N. 288 30 E.	133 0	·956	1·097	29 22
16	N. 180 0 E.	13 40 W.	12 40 W.	·389	N. 310 40 E.	135 0	·960	1·036	22 3
18	N. 202 30 E.	4 20 W.	3 20 W.	·228	N. 340 30 E.	145 0	·978	1·004	13 7
20	N. 225 0 E.	2 40 E.	3 40 E.	·213	N. 21 30 E.	154 0	1·007	1·029	11 57
22	N. 247 30 E.	7 50 E.	8 50 E.	·260	N. 44 30 E.	157 0	1·053	1·082	13 52
24	N. 270 0 E.	12 20 E.	13 20 E.	·314	N. 61 10 E.	151 10	1·102	1·146	15 54
26	N. 292 30 E.	16 40 E.	17 40 E.	·358	N. 75 30 E.	143 0	1·143	1·198	17 23
28	N. 315 0 E.	19 50 E.	20 50 E.	·383	N. 92 30 E.	137 30	1·172	1·239	18 6
30	N. 337 30 E.	21 50 E.	22 50 E.	·390	N. 108 30 E.	131 0	1·170	1·233	18 26
...	...	...	...	·421	...	130 16	1·054	1·134	20 55
Ship heeling 10° to Starboard.									
	° ′	° ′	° ′		° ′	° ′			° ′
0	N. 0 0 E.	16 40 W.	16 10 W.	·335	N. 223 0 E.	223 0	1·157	1·205	16 8
2	N. 22 30 E.	18 0 W.	17 30 W.	·320	N. 240 30 E.	218 0	1·152	1·195	15 31
4	N. 45 0 E.	18 0 W.	17 30 W.	·305	N. 254 10 E.	209 10	1·137	1·177	15 1
6	N. 67 30 E.	17 40 W.	17 10 W.	·308	N. 268 15 E.	200 45	1·110	1·152	15 30
8	N. 90 0 E.	15 20 W.	14 50 W.	·303	N. 290 0 E.	200 0	1·074	1·117	16 0
10	N. 112 30 E.	10 30 W.	10 0 W.	·300	N. 314 30 E.	202 0	1·039	1·081	16 6
12	N. 135 0 E.	4 15 W.	3 45 W.	·283	N. 342 30 E.	207 30	1·005	1·044	15 44
14	N. 157 30 E.	2 30 E.	3 0 E.	·288	N. 14 0 E.	216 0	·983	1·024	16 20
16	N. 180 0 E.	9 30 E.	10 0 E.	·329	N. 42 30 E.	222 30	·972	1·026	18 42
18	N. 202 30 E.	16 20 E.	16 50 E.	·376	N. 62 15 E.	219 45	·970	1·040	21 11
20	N. 225 0 E.	22 0 E.	22 30 E.	·410	N. 91 0 E.	226 0	·980	1·062	22 42
22	N. 247 30 E.	24 40 E.	25 10 E.	·425	N. 114 30 E.	227 0	1·010	1·096	22 49
24	N. 270 0 E.	23 30 E.	23 50 E.	·438	N. 136 0 E.	226 0	1·052	1·140	22 36
26	N. 292 30 E.	13 20 E.	13 50 E.	·428	N. 159 15 E.	226 45	1·100	1·180	21 16
28	N. 315 0 E.	5 0 W.	4 30 W.	·405	N. 185 40 E.	230 40	1·129	1·199	19 44
30	N. 337 30 E.	13 15 W.	13 45 W.	·375	N. 205 0 E.	227 30	1·148	1·208	18 5
...	...	...	...	·352	...	217 40	1·059	1·122	18 20

PALL MALL

APPENDIX B.

EXPERIMENTS to ascertain the Effect of HEELING on the COMPASSES of the Iron Sailing Ship "APHRODIT

This ship was heeled and swung in the Wellington Basin, Liverpool, May 29th and 30th, 1858. In the absence the Secretary the swinging of the "APHRODITA" was kindly undertaken by Mr. Towson, assisted by Mr. Smart of Local Marine School, the dipping needle compass and the Admiralty standard compass being respectively obser by these gentlemen. The observations for the two steering compasses were rather discordant, owing, apparen to the sluggishness of the cards; the resultant deviations for these compasses must, therefore, only be taken roughly approximate.

"APHRODITA."

DEVIATION TABLES for Four Compasses, Ship upright, and with 10° Heel to Port and to Starboard; also Deviation Tables Two of the Compasses, as obtained some days afterwards.

Ship's Head by each Compass (disturbed).	I. Compass under the Companion (approximate).			II. Compass over the Companion (approximate).			III. Admiralty Standard Compass.			IV. Dipping Needle Compass.			Dipping Needle Compass.	Admiralty Standard Compa Ship upright.	
	10° Heel to Port.	Ship upright.	10° Heel to Star-board.	10° Heel to Port.	Ship upright.	10° Heel to Star-board.	10° Heel to Port.	Ship upright.	10° Heel to Star-board.	10° Heel to Port.	Ship upright.	10° Heel to Star-board.	July 10th, Ship upright.	July 10th, in Dock.	July 1 in th Rive
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N.	43 0 E.	21 50 E.	4 0 W.	50 0 E.	18 0 E.	3 30 W.	36 0 E.	17 30 E.	5 45 E.	43 45 E.	28 35 E.	12 25 E.	25 45 E.	19 10 E.	18 30
N. by E.	37 30 E.	22 10 E.	2 0 W.	43 30 E.	12 0 E.	6 30 W.	35 10 E.	15 40 E.	5 45 E.	44 10 E.	29 40 E.	14 50 E.	28 30 E.	17 50 E.	17 45
N.N.E.	30 30 E.	20 50 E.	0 0	35 30 E.	5 10 E.	8 30 W.	31 50 E.	13 10 E.	5 3 E.	42 50 E.	28 40 E.	15 50 E.	29 10 E.	16 0 E.	15 55
N.E. by N.	22 30 E.	18 40 E.	1 30 E.	26 30 E.	2 0 W.	10 30 W.	26 30 E.	10 20 E.	3 0 E.	39 0 E.	26 30 E.	14 45 E.	28 10 E.	13 15 E.	13 0
N.E.	13 30 E.	14 45 E.	2 0 E.	17 0 E.	9 15 W.	13 30 W.	19 50 E.	7 0 E.	1 0 E.	33 20 E.	22 40 E.	12 50 E.	25 35 E.	9 30 E.	9 40
N.E. by E.	4 0 E.	9 45 E.	1 40 E.	7 0 E.	15 50 W.	16 0 W.	12 0 E.	3 0 E.	1 0 W.	25 30 E.	17 40 E.	10 0 E.	21 10 E.	5 30 E.	5 15
E.N.E.	5 0 W.	4 30 E.	0 45 E.	3 0 W.	21 20 W.	19 30 W.	4 0 E.	1 5 W.	3 15 W.	16 30 E.	11 20 E.	6 30 E.	15 25 E.	0 40 E.	0 25
E. by N.	14 0 W.	0 0	0 15 W.	12 0 W.	26 15 W.	22 30 W.	4 10 W.	5 35 W.	5 45 W.	6 50 E.	4 30 E.	1 45 E.	8 50 E.	5 0 W.	4 40
E.	24 0 W.	6 0 W.	1 0 W.	22 30 W.	30 0 W.	25 0 W.	12 0 W.	10 10 W.	8 45 W.	3 30 W.	2 50 W.	3 20 W.	1 0 E.	10 25 W.	9 35
E. by S.	33 30 W.	11 15 W.	1 40 W.	30 30 W.	32 45 W.	26 0 W.	19 10 W.	14 40 W.	11 15 W.	13 20 W.	10 0 W.	8 35 W.	7 20 W.	15 40 W.	14 40
E.S.E.	42 0 W.	15 50 W.	2 0 W.	39 0 W.	35 0 W.	26 30 W.	25 20 W.	18 35 W.	12 50 W.	22 50 W.	16 45 W.	13 0 W.	15 20 W.	20 0 W.	18 35
S.E. by E.	49 20 W.	19 40 W.	2 0 W.	47 0 W.	35 30 W.	24 45 W.	30 30 W.	21 40 W.	13 45 W.	31 40 W.	22 25 W.	16 10 W.	22 30 W.	23 30 W.	21 30
S.E.	54 40 W.	22 15 W.	2 0 W.	53 0 W.	35 30 W.	20 30 W.	34 0 W.	23 35 W.	13 40 W.	38 15 W.	26 30 W.	17 45 W.	29 5 W.	25 10 W.	22 50
S.E. by S.	58 20 W.	24 0 W.	1 0 W.	56 30 W.	33 20 W.	14 40 W.	36 50 W.	24 30 W.	12 0 W.	43 0 W.	28 30 W.	18 0 W.	34 0 W.	27 5 W.	23 10
S.S.E.	60 30 W.	24 20 W.	1 0 E.	57 30 W.	30 30 W.	7 30 W.	38 0 W.	24 30 W.	10 0 W.	45 0 W.	28 45 W.	17 10 W.	37 20 W.	27 30 W.	22 25
S. by E.	59 0 W.	22 30 W.	4 30 E.	55 0 W.	24 40 W.	0 0	37 40 W.	22 0 W.	6 20 W.	44 50 W.	26 50 W.	14 40 W.	38 30 W.	26 40 W.	20 0
S.	54 0 W.	19 40 W.	9 30 E.	49 0 W.	16 50 W.	8 0 E.	35 45 W.	18 0 W.	1 45 W.	41 20 W.	21 50 W.	10 15 W.	37 35 W.	23 50 W.	17 15
S. by W.	45 0 W.	13 30 W.	13 30 E.	38 0 W.	8 30 W.	17 0 E.	31 20 W.	12 30 W.	3 40 E.	35 45 W.	16 0 W.	5 20 W.	33 30 W.	19 30 W.	13 50
S.S.W.	35 30 W.	7 0 W.	16 30 E.	27 30 W.	0 50 W.	24 0 E.	25 30 W.	6 30 W.	7 40 E.	27 30 W.	9 0 W.	0 40 W.	27 20 W.	13 50 W.	9 50
S.W. by S.	25 30 W.	3 40 W.	17 30 E.	17 30 W.	6 10 E.	29 0 E.	19 0 W.	0 40 W.	10 40 E.	19 50 W.	3 0 W.	2 15 E.	19 50 W.	7 20 W.	5 30
S.W.	17 40 W.	1 30 W.	17 45 E.	10 0 W.	12 0 E.	32 40 E.	12 50 W.	3 20 E.	11 50 E.	13 0 W.	1 0 E.	4 0 E.	12 15 W.	1 15 W.	1 30
S.W. by W.	11 0 W.	0 30 W.	16 40 E.	2 30 W.	17 20 E.	33 30 E.	7 10 W.	7 0 E.	11 50 E.	7 45 W.	4 0 E.	4 40 E.	7 35 W.	2 55 E.	2 30
W.S.W.	6 0 W.	0 0	14 30 E.	4 30 E.	22 30 E.	33 30 E.	2 20 W.	9 50 E.	11 20 E.	3 20 W.	6 20 E.	4 5 E.	5 10 W.	5 30 E.	5 30
W. by S.	1 30 W.	1 0 E.	11 30 E.	11 30 E.	26 0 E.	33 20 E.	0 45 E.	12 30 E.	10 50 E.	0 10 W.	8 0 E.	3 0 E.	3 45 W.	7 35 E.	7 45
W.	4 0 E.	2 0 E.	6 30 E.	19 0 E.	29 0 E.	32 0 E.	4 20 E.	14 0 E.	10 0 E.	2 50 E.	9 30 E.	1 50 E.	2 30 W.	9 50 E.	9 25
W. by N.	10 40 E.	3 10 E.	1 0 E.	29 0 E.	31 25 E.	30 0 E.	8 40 E.	15 45 E.	8 40 E.	6 40 E.	10 35 E.	1 15 E.	1 10 W.	11 30 E.	10 50
W.N.W.	18 0 E.	4 50 E.	4 45 W.	38 30 E.	32 0 E.	28 0 E.	13 30 E.	17 0 E.	7 0 E.	11 15 E.	11 45 E.	1 10 E.	0 45 E.	13 15 E.	12 15
N.W. by W.	25 0 E.	6 50 E.	9 30 W.	48 0 E.	31 35 E.	24 0 E.	18 40 E.	17 40 E.	5 45 E.	16 10 E.	13 30 E.	0 50 E.	3 0 E.	15 0 E.	13 35
N.W.	32 30 E.	8 45 E.	12 0 W.	54 30 E.	30 35 E.	20 0 E.	23 50 E.	18 25 E.	4 40 E.	22 50 E.	15 40 E.	1 15 E.	6 0 E.	16 45 E.	14 50
N.W. by N.	38 30 E.	11 10 E.	13 0 W.	58 0 E.	28 50 E.	14 45 E.	28 0 E.	18 40 E.	3 35 E.	30 45 E.	18 25 E.	2 25 E.	9 40 E.	17 20 E.	16 20
N.N.W.	43 0 E.	15 0 E.	11 0 W.	57 0 E.	26 10 E.	8 40 E.	32 0 E.	18 30 E.	3 15 E.	37 30 E.	21 35 E.	4 40 E.	14 40 E.	18 40 E.	17 25
N. by W.	45 0 E.	19 45 E.	7 30 W.	55 0 E.	22 50 E.	2 0 E.	35 0 E.	18 0 E.	3 50 E.	41 20 E.	25 20 E.	8 0 E.	20 30 E.	19 15 E.	18 0

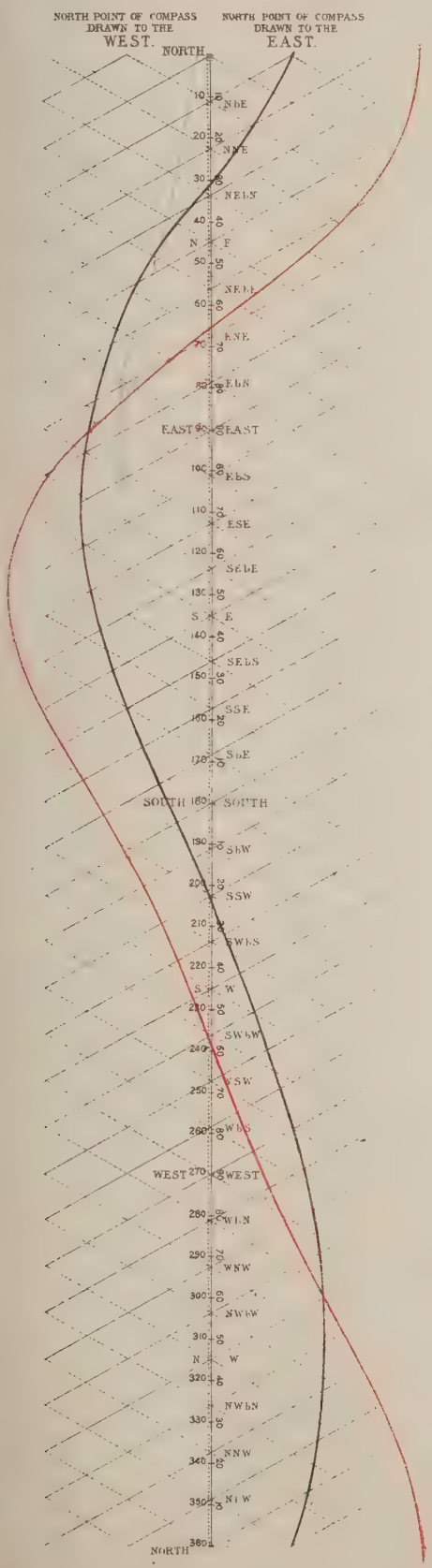
MAGNETIC CO-EFFICIENTS.

A	− 7 9	− 0 12	+ 1 54	+ 1 4	− 0 13	+ 3 55	− 1 19	+ 1 3	+ 1 6	+ 0 57	+ 3 13	+ 0 6	− 3 1	− 0 51	+ 0 7
B	−16 10	− 4 35	− 2 55	+23 2	−29 55	−29 13	− 8 26	−12 51	− 9 32	− 4 7	− 6 34	− 3 10	+ 1 35	−10 23	− 9 34
C	+44 3	+18 30	− 8 3	+46 29	+16 19	− 3 44	+33 33	+16 44	+ 2 53	+39 58	+23 39	+10 28	+28 37	+20 4	+17 38
D	+ 4 26	+ 6 47	+ 8 32	+ 1 36	+ 2 3	+ 4 54	+ 4 27	+ 4 0	+ 5 43	+ 8 46	+ 8 42	+ 8 17	+ 8 54	+ 4 17	+ 3 56
E	+ 2 32	+ 1 46	− 0 16	+ 1 8	+ 0 43	− 0 12	+ 2 27	− 1 7	+ 0 37	+ 0 50	− 0 3	+ 0 46	− 2 45	− 1 3	+ 0 31

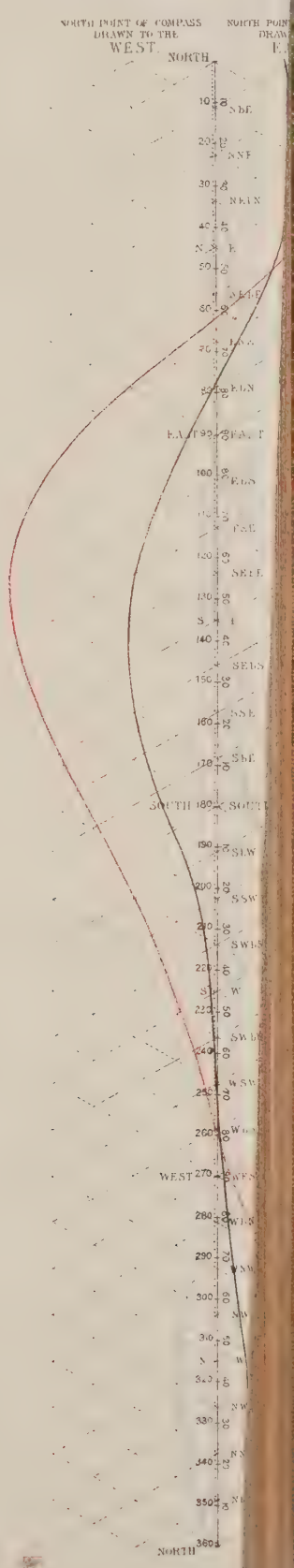
APHRODI

THE BLACK CURVES SHOW THE DEVIATIONS WITH SHIP UPRIGHT; THE RED C
THE BLUE CURVES THE DEVIATIONS WITH THE S

COMPASS PLACED IN THE ORDINARY POSITION OF A STEERING COMPASS.



STEERING COMPA
UNDER THE COMPA



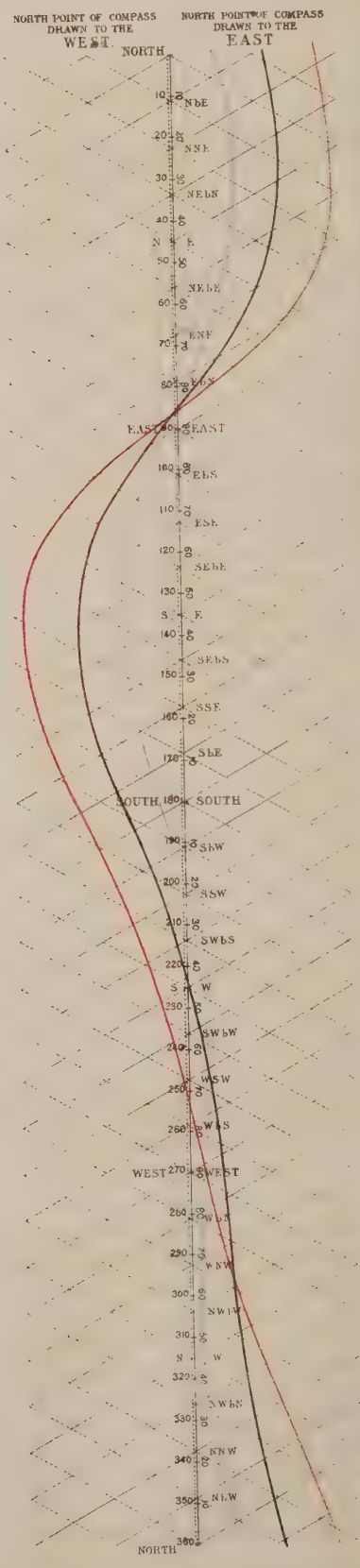
I T A.

URVES THE DEVIATIONS WITH THE SHIP HEELED 10° TO PORT;
HIP HEELED 10° TO STARBOARD.

SS
NION.

OF COMPASS
TO THE
ST.

DIPPING NEEDLE COMPASS.

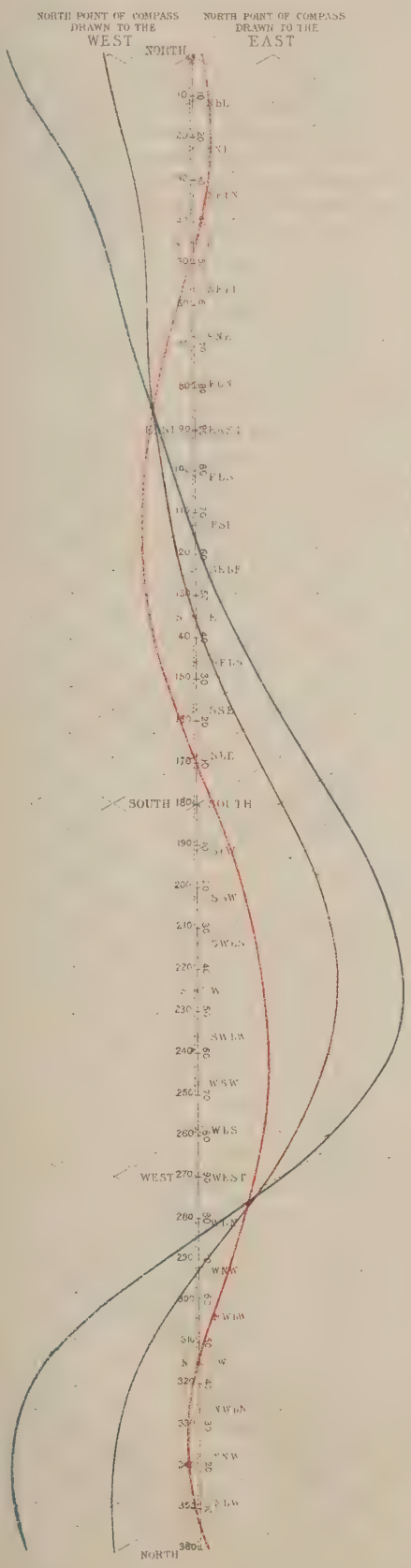


Day & Son, Lith.rs to the Queen

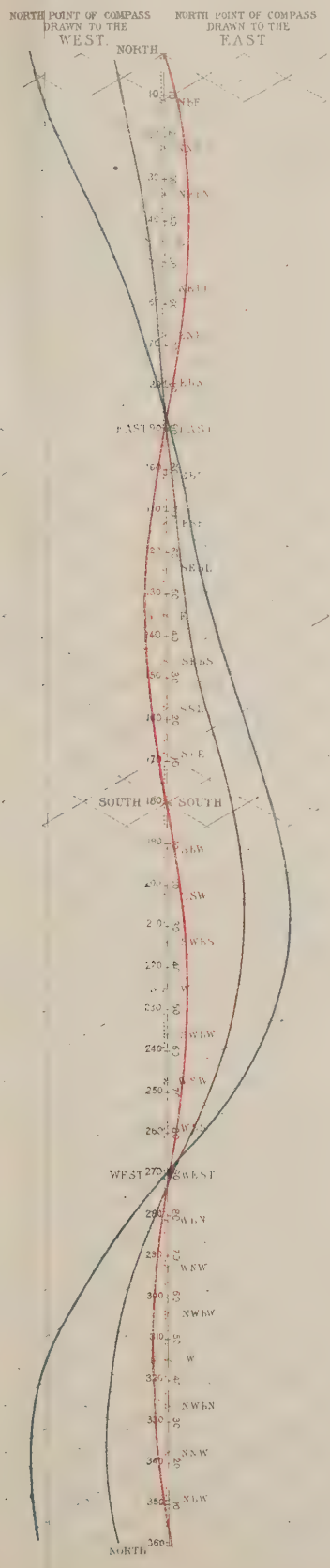
THE BLACK CURVES SHOW THE DEVIATIONS WITH SHIP UPRIGHT

THE BLUE CURVES THE DEVIATION

STEERING COMPASS.



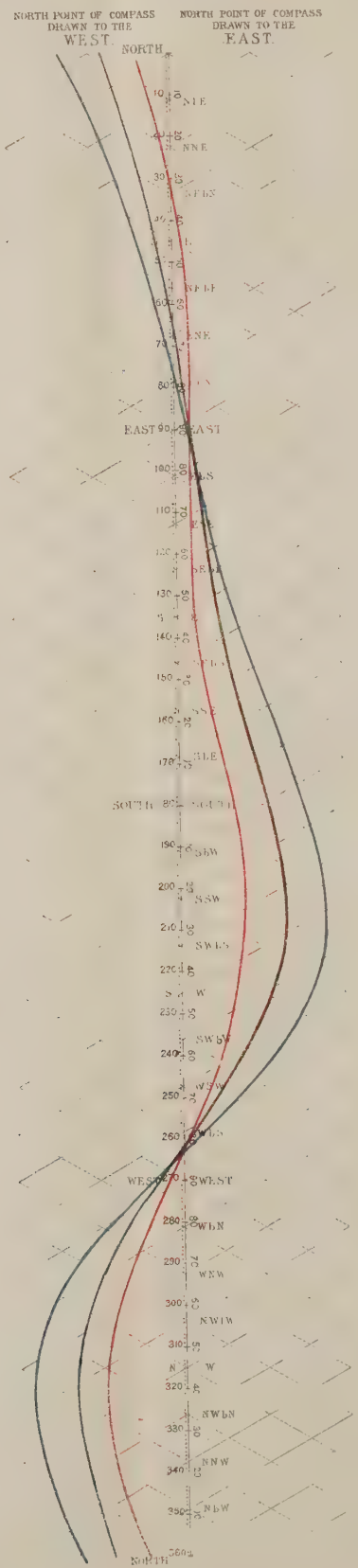
COMPASS PLACED OVER THE COMPANION.



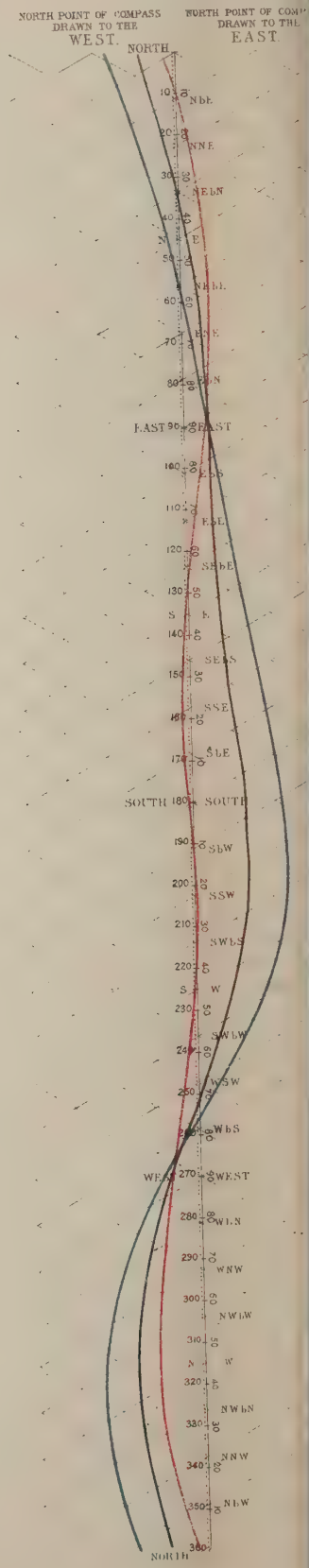
M L A.

THE RED CURVES THE DEVIATIONS WITH THE SHIP HEELED 10° TO PORT;
S WITH THE SHIP HEELED 10° TO STARBOARD.

DIPPING NEEDLE COMPASS.



FORE COMPASS.



Day & Son 17th

APPENDIX C.

EXPERIMENTS to ascertain the Effect of HEELING on the COMPASSES of the Iron Sailing Ship "SIMLA."

This ship was swung in the Canada Dock, Liverpool, August 24th and 26th, 1858. Ship's head correct magnetic was obtained by the known bearing of a distant chimney by the Secretary, by means of a "Friend's Pelorus." Mr. Towson took sole charge of the dipping needle compass, and conducted the vibration experiments which are recorded in the annexed tables. Some observations for dip were also made. Captain Williams superintended the swinging and heeling of the ship.

Before swinging the "Simla" lay for some time with her head to the eastward. August 24th she was swung upright, commencing at E. and going round by way of N. to E.S.E. August 26th she was heeled to starboard while she was hauling off from the quay, the swinging commencing with ship's head N. 39° W., and went on by way of W. and S. to N. 23° W. While in this position she was trimmed over to 6° 30′ of port heel, the deviations of the different compasses being constantly noted during the whole time. The particulars are given in a tabular form at page 54. The trimming over occupied so much time, and the day was so far advanced when 6° 30′ of heel to port was obtained, that it was determined to proceed with the swinging and heeling of the ship at the same time, and to make a correction for the difference between the deviation at the observed heel and the intended heel of 10°.

"SIMLA."

SHIP nearly upright. Swung in the CANADA DOCK, LIVERPOOL, August 24th, 1858.

Head Ship's Correct Magnetic.	Estimated Heel to Starboard.	Steering Compass.		Compass over the Companion.		Dipping Needle Compass.			Standard Compass.		Forward Compass.	
		Head by Compass.	Deviation.	Head by Compass.	Deviation.	Head by Compass.	Deviation.	Vibrations Per Minute.	Head by Compass.	Deviation.	Head by Compass.	Deviation.
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′		° ′	° ′		
N. 1 45 W.	0 45	N. 21 30 E.	23 15 W.	N. 11 45 E.	13 30 W.	N. 15 0 E.	16 45 W.	20·69	N. 9 0 E.	10 45 W.	N. 6 0 E.	7 45 W.
N 0 30 E.	..	N. 21 30 E.	21 0 W.	N. 11 45 E.	11 15 W.	..	..	..	..	..	..	..
N. 21 30 E.	1 0	N. 38 45 E.	17 15 W.	N. 29 15 E.	7 45 W.	N. 30 0 E.	8 30 W.	20·78	N. 27 0 E.	5 30 W.	N. 24 30 E.	3 0 W.
N. 21 45 E.	..	N. 38 45 E.	17 0 W.	N. 29 15 E.	7 30 W.	N. 30 0 E.	8 15 W.	.	N. 27 0 E.	5 15 W.	N. 24 15 W.	2 30 W.
N. 46 20 E.	1 0	N. 60 15 E.	13 55 W.	N. 50 0 E.	3 40 W.	..	..	..	..	..	..	..
N. 45 50 E.	..	..	..	..	..	N. 46 30 E.	0 40 W.	21·05	N. 45 35 E.	0 15 E.	N. 43 15 E.	2 35 E.
N. 45 20 E.	..	..	..	..	..	N. 47 30 E.	2 10 W.	..	N. 45 15 E.	0 5 E.	N. 43 15 E.	2 5 E.
N. 67 10 E.	1 15	N. 80 0 E.	12 50 W.	N. 69 10 E.	2 0 W.	..	..	..	..	..	..	..
N. 67 25 E.	..	..	..	..	..	N. 65 0 E.	2 25 E.	20·78	N. 65 45 E.	1 40 E.	N. 60 45 E.	6 40 E.
N. 88 40 E.	1 15	N. 100 0 E.	11 20 W.	N. 88 30 E.	0 10 E.	..	..	..	..	..	..	..
N. 89 25 E.	..	..	..	..	..	N. 85 30 E.	3 55 E.	20·34	N. 88 30 E.	0 55 E.	N. 85 0 E.	4 25 E.
N. 110 45 E.	1 0	N. 115 30 E.	4 15 W.	N. 109 15 E.	1 30 E.	N. 102 45 E.	8 0 E.	21·23	N. 106 15 E.	4 30 E.	N. 100 45 E.	10 0 E.
N. 134 40 E.	1 0	N. 135 0 E.	0 20 W.	N. 130 30 E.	4 10 E.	N. 123 30 E.	11 10 E.	20·50	N. 127 30 E.	7 10 E.	..	..
N. 135 40 E.	..	N. 135 0 E.	0 40 E.	N. 130 30 E.	5 10 E.	N. 123 30 E.	12 10 E.	..	N. 127 30 E.	8 10 E.	N. 124 30 E.	11 10 E.
N. 158 10 E.	0 45	..	..	..	..	..	..	..	..	..	N. 149 0 E.	9 10 E.
N. 158 40 E.	..	..	..	..	..	N. 141 0 E.	17 40 E.	20·00	N. 149 15 E.	9 25 E.	..	..
N. 159 10 E.	..	N. 151 0 E.	8 10 E.	N. 150 0 E.	9 10 E.	..	..	..	..	..	..	..
N. 182 5 E.	0 45	N. 163 0 E.	19 5 E.	N. 166 30 E.	15 35 E.	N. 157 0 E.	25 5 E.	19·35	N. 168 30 E.	13 35 E.	N. 168 0 E.	14 5 E.
N. 197 28 E.	0 30	N. 172 0 E.	25 28 E.	N. 179 30 E.	17 58 E.	N. 169 0 E.	28 28 E.	18·00	N. 182 0 E.	15 28 E.	N. 182 30 E.	14 58 E.
N. 227 40 E.	0 30	N. 191 0 E.	36 40 E.	N. 207 45 E.	19 55 E.	N. 196 5 E.	31 35 E.	15·48	N. 212 5 E.	15 35 E.	N. 216 25 E.	11 15 E.
N. 234 35 E.	0 15	N. 197 15 E.	37 20 E.	N. 217 0 E.	17 35 E.	N. 206 0 E.	28 35 E.	15·48	N. 220 30 E.	12 5 E.	N. 229 0 E.	5 35 E.
N. 235 35 E.	..	N. 197 15 E.	38 20 E.	N. 217 0 E.	18 35 E.	..	..	..	N. 220 30 E.	13 5 E.	..	..
N. 251 20 E.	0 15	N. 212 45 E.	38 35 E.	N. 237 45 E.	13 35 E.	N. 233 30 E.	17 50 E.	13·33	N. 244 30 E.	6 50 E.	N. 251 30 E.	0 20 W.
N. 258 0 E.	0 15	..	..	N. 249 30 E.	8 30 E.	..	..	..	..	..	..	..
N. 259 50 E.	..	N. 223 30 E.	36 0 E.	..	..	..	..	..	N. 255 30 E.	4 0 E.	..	..
N. 261 30 E.	..	..	..	..	..	N. 249 30 E.	12 0 E.	12·00	..	..	N. 266 15 E.	4 45 W.
N. 270 35 E.	0 15	N. 241 30 E.	29 5 E.	N. 268 0 E.	2 35 E.	N. 278 0 E.	7 25 W.	14·40	N. 274 0 E.	3 25 W.	N. 280 15 E.	9 40 W.
N. 291 35 E.	0 0	N. 290 55 E.	0 40 E.	N. 301 45 E.	10 10 W.	N. 318 0 E.	26 25 W.	13·85	N. 306 0 E.	14 25 W.	N. 309 15 E.	17 40 W.
N. 292 20 E.	..	..	..	..	..	N. 317 15 E.	24 55 W.	..	N. 305 15 E.	12 55 W.	N. 309 15 E.	16 55 W.
N. 342 30 E.	0 0	N. 333 15 E.	20 45 W.	N. 328 15 E.	15 45 W.	N. 341 0 E.	28 30 W.	16·88	N. 330 0 E.	17 30 W.	N. 330 0 E.	17 30 W.
N. 341 30 E.	0 0	..	..	..	..	N. 2 30 E.	21 0 W.	20·00	N. 355 0 E.	13 30 W.	N. 355 0 E.	13 30 W.
N. 344 0 E.	..	N. 7 30 E.	23 30 W.	N. 358 0 E.	14 0 W.	..	..	..	..	..	..	..

"SIMLA"—*continued.*

SHIP heeling to Port. Swung in the CANADA DOCK, LIVERPOOL, August 26th, 1858.

Ship's Head, Correct Magnetic.	Heel to Port.	Steering Compass.		Compass over the Companion.		Dipping Needle Compass.			Standard Compass.		Forward Compass	
		Head by Compass.	Deviation.	Head by Compass.	Deviation.	Head by Compass.	Deviation.	Vibrations per Minute.	Head by Compass.	Deviation.	Head by Compass.	Deviation.
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′		° ′	° ′	° ′	° ′
N. 353 0 E.	9 30	N. 337 30 E.	0 30 E.	N. 355 30 E.	2 30 E.	..	..	..	..	..	..	..
N. 359 45 E.	..	N. 337 30 E.	2 15 E.	N. 355 30 E.	4 15 E.	N. 9 0 E.	9 15 W.	20·00	N. 2 30 E.	2 45 W.	N. 2 30 E.	2 45
N. 19 30 E.	9 15	N. 14 45 E.	4 45 E.	?N. 20 30 E.	1 0 W.	N. 22 30 E.	3 0 W.	20·34	N. 20 0 E.	0 30 W.	N. 17 30 E.	2 0
..	..	..	..	?N. 15 30 E.	6 0 E.	..	..	..	..	..	..	..
N. 41 5 E.	9 20	N. 42 0 E.	0 55 W.	N. 35 0 E.	6 5 E.	N. 43 0 E.	1 55 W.	20·69	N. 40 0 E.	1 5 E.	N. 35 45 E.	5 20
N. 43 5 E.	..	N. 42 0 E.	1 5 E.	N. 35 0 E.	8 5 E.	N. 43 0 E.	0 5 E.	..	N. 40 0 E.	3 5 E.	..	..
N. 70 20 E.	9 15	N. 81 0 E.	9 40 W.	N. 68 0 E.	2 20 E.	N. 66 0 E.	4 20 E.	20·69	N. 66 0 E.	4 20 E.	N. 62 30 E.	7 50
N 102 40 E.	9 30	N. 117 15 E.	14 35 W.	N. 105 45 E.	3 5 W.	..	..	..	..	..	..	..
N. 104 10 E.	..	N. 117 15 E.	13 5 W.	N. 105 45 E.	1 35 W.	N. 100 0 E.	4 10 E.	20·00	N. 102 30 E.	1 40 E.	N. 100 30 E.	3 40
N. 139 40 E.	9 30	N. 150 0 E.	10 20 W.	N. 144 0 E.	4 20 W.	N. 134 0 E.	5 40 E.	20·00	N. 140 0 E.	0 20 W.	N. 139 30 E.	0 10
N. 140 20 E.	..	N. 151 10 E.	10 50 W.	N. 145 10 E.	4 50 W.	N. 134 0 E.	6 20 E.	..	N. 140 0 E.	0 20 E.	N. 139 30 E.	0 50
N. 153 50 E.	9 5	N. 159 10 E.	5 40 W.	N. 158 30 E.	4 40 W.	N. 145 0 E.	8 50 E.	19 35	N. 154 0 E.	0 10 W.	N. 155 30 E.	1 40
N. 154 20 E.	..	N. 159 30 E.	5 10 W.	N. 158 30 E.	4 10 W.	..	..	..	..	..	..	..
N. 175 35 E.	9 50	N. 172 30 E.	3 5 E.	N. 175 45 E.	0 10 W.	N. 162 0 E.	13 35 E.	19·35	N. 172 30 E.	3 5 E.	N. 174 30 E.	1 5
N. 202 0 E.	9 5	N. 189 0 E.	13 0 E.	N. 199 15 E.	2 45 E.	N. 183 30 E.	18 30 E.	19·29	N. 199 0 E.	3 0 E.	N. 200 30 E.	1 30
N. 230 45 E.	9 0	N. 210 0 E.	20 45 E.	N. 226 30	4 15 E.	N. 212 30 E.	18 15 E.	15·87	?N. 222 0 E.	? 8 45 E.	N. 231 0 E.	0 15
..	..	..	..	..	..	..	..	..	?N. 228 0 E.	? 2 45 E.	..	..
N. 251 35 E.	8 30	N. 228 30 E.	23 5 E.	N. 247 45 E.	3 50 E.	N. 244 0 E.	7 35 E.	14·48	N. 251 0 E.	0 35 E.	N. 255 0 E.	3 25
N. 266 0 E.	7 45	N. 246 0 E.	20 0 E.	N. 265 30 E.	0 30 E.	N. 271 0 E.	5 0 W.	14·00	N. 270 15 E.	4 15 W.	N. 277 30 E.	11 30
N. 267 30 E.	..	N. 246 0 E.	21 30 E.	N. 265 30 E.	2 0 E.	N. 271 0 E.	3 30 W.	..	N. 270 15 E.	2 45 W.	N. 277 30 E.	10 0
N. 290 40 E.	7 30	N. 284 30 E.	6 10 E.	N. 294 30 E.	3 50 W.	N. 313 0 E.	22 20 W.	14·48	N. 301 30 E.	10 40 W.	N. 304 15 E.	13 35
N. 291 10 E.	..	N. 284 30 E.	6 40 E.	N. 294 30 E.	3 20 W.	..	..	..	..	..	..	..
N. 315 5 E.	7 15	N. 321 30 E.	6 25 W.	N. 322 15 E.	7 10 W.	N. 341 30 E.	26 25 W.	17·42	N. 331 0 E.	15 55 W.	N. 330 15 E.	15 10
N. 332 25 E.	6 30	N. 347 30 E.	15 5 W.	N. 342 45 E.	10 20 W.	..	..	..	..	..	..	..
N. 335 55 E.	..	N. 347 30 E.	11 35 W.	N. 342 45 E.	6 55 W.	N. 358 30 E.	22 35 W.	19·35	N. 348 0 E.	12 5 W.	N. 348 0 E.	12 5

SHIP heeling to Starboard. Swung in the CANADA DOCK, LIVERPOOL, August 26th, 1858.

Ship's Head Correct Magnetic.	Heel to Port.	Steering Compass.		Compass over the Companion.		Dipping Needle Compass.			Standard Compass.		Forward Compass	
		Head by Compass.	Deviation.	Head by Compass.	Deviation.	Head by Compass.	Deviation.	Vibrations per Minute.	Head by Compass.	Deviation.	Head by Compass.	Deviation.
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′		° ′	° ′	° ′	°
N. 351 50 E.	10 35	N. 35 30 E.	43 40 W.	N. 28 15 E.	36 25 W.	N. 21 0 E.	29 10 W.	20·87	N. 10 0 E.	18 10 W.	N. 11 15 E.	19 2
N. 30 50 E.	10 5	N. 58 0 E.	27 10 W.	N. 48 0 E.	17 10 W.	N. 45 0 E.	14 10 W.	22·56	N. 41 0 E.	10 10 W.	N. 38 0 E.	7 1
N. 58 12 E.	10 15	N. 77 0 E.	18 48 W.	N. 67 30 E.	9 18 W.	N. 65 0 E.	4 48 W.	22·46	N. 61 0 E.	2 48 W.	N. 58 15 E.	0 3
N. 87 25 E.	10 15	N. 86 30 E.	0 55 E.	N. 88 0 E.	0 35 W.	N. 82 0 E.	5 25 E.	22·37	N. 83 30 E.	3 55 E.	N. 80 30 E.	6 55
..	..	?N. 94 30 E.	7 5 W.	..	..	..	..	..	..	..	..	..
N. 121 0 E.	9 45	N. 120 0 E.	1 0 E.	N. 113 45 E.	7 15 E.	N. 110 30 E.	10 30 E.	21·43	N. 112 30 E.	8 30 E.	N. 109 0 E.	12 0
N. 147 55 E.	9 45	N. 135 15 E.	12 40 E.	N. 133 0 E.	14 55 E.	N. 132 0 E.	15 55 E.	21·05	N. 136 0 E.	11 55 E.	N. 134 0 E.	13 55
N. 151 10 E.	9 45	N. 138 30 E.	12 40 E.	N. 136 15 E.	14 55 E.	N. 132 0 E.	19 10 E.	..	N. 136 E.	15 10 E.	N. 134 0 E.	17 10
N. 171 35 E.	9 30	N. 150 0 E.	21 35 E.	N. 150 30 E.	21 5 E.	N. 145 45 E.	25 50 E.	20·69	N. 152 0 E.	19 35 E.	N. 151 30 E.	20 50
N. 201 10 E.	8 40	N. 166 0 E.	35 10 E.	N. 173 30 E.	27 40 E.	N. 166 0 E.	35 10 E.	18·75	N. 178 0 E.	23 10 E.	N. 177 30 E.	23 40
N. 212 55 E.	9 5	N. 172 0 E.	40 55 E.	N. 182 45 E.	30 10 E.	N. 174 0 E.	38 55 E.	17·14	N. 187 30 E.	25 25 E.	N. 188 30 E.	24 25
N. 230 55 E.	9 30	..	..	..	..	N. 191 30 E.	39 25 E.	14·55	N. 209 0 E.	21 55 E.	N. 208 30 E.	22 25
N. 231 40 E.	..	N. 179 10 E.	52 30 E.	N. 198 40 E.	33 0 E.	..	..	..	N. 208 20 E.	23 20 E.	N. 218 15 E.	23 25
N. 245 45 E.	10 5	N. 188 45 E.	57 0 E.	N. 216 0 E.	29 45 E.	N. 212 0 E.	33 45 E.	12·00	N. 228 0 E.	17 45 E.	N. 234 0 E.	11 45
N. 245 0 E.	..	..	..	..	..	N. 212 0 E.	33 0 E.	..	..	..	..	..
N. 258 25 E.	10 15	N. 200 0 E.	58 25 E.	N. 240 30 E.	17 55 E.	N. 247 0 E.	11 25 E.	10·00	N. 254 0 E.	4 25 E.	N. 261 0 E.	2 35
N. 272 30 E.	10 15	N. 218 0 E.	54 30 E.	?N. 262 45 E.	? 9 45 E.	N. 293 0 E.	20 30 W.	10·75	N. 282 30 E.	10 0 W.	N. 286 45 E.	14 15
N. 281 5 E.	10 25	N. 257 30 E.	23 35 E.	N. 293 45 E.	12 40 W.	N. 318 30 E.	37 25 W.	12·00	N. 301 30 E.	20 25 W.	N. 303 30 E.	22 25
N. 298 50 E.	10 35	N. 355 20 E.	56 30 W.	N. 332 50 E.	34 0 W.	N. 343 0 E.	44 10 W.	14·76	N. 325 0 E.	26 10 W.	N. 326 45 E.	27 55
N. 319 45 E.	10 38	N. 18 0 E.	58 15 W.	N. 358 15 E.	38 30 W.	..	..	..	N. 347 15 E.	27 30 W.	N. 347 30 E.	27 45
N. 319 45 E.	..	..	..	..	..	..	..	..	N. 349 0 E.	29 15 W.	..	..
N. 320 15 E.	10 38	N. 19 0 E.	58 45 W.	N. 359 45 E.	39 30 W.	North	39 45 W.	18·46	N. 349 30 E.	29 15 W.	N. 348 0 E.	27 45
N. 336 45 E.	10 35	N. 35 30 E.	58 45 W.	N. 28 15 E.	41 30 W.	..	..	..	..	..	..	..
N. 338 5 E.	10 35	N. 35 30 E.	57 25 W.	N. 28 15 E.	40 10 W.	N. 12 30 E.	34 25 W.	19·51	N. 3 30 E.	25 25 W.	N. 1 30 E.	23 25

"Simla"—*continued.*

Tables for Ship upright and with a List to Starboard and to Port of 10° ; obtained from Curves passed through observations recorded in the preceding Tables, Corrections being applied for the Difference between the observed of heel and 10°.

Steering Compass.			Compass over the Companion.			Dipping Needle Compass.			Standard Compass.			Forward Compass.		
Deviation, Ship heeling 10° to Port.	Deviation, Ship Upright.	Deviation, Ship heeling 10° to Starboard.	Deviation, Ship heeling 10° to Port.	Deviation, Ship Upright.	Deviation, Ship heeling 10° to Starboard.	Deviation, Ship heeling 10° to Port.	Deviation, Ship Upright.	Deviation, Ship heeling 10° to Starboard.	Deviation, Ship heeling 10° to Port.	Deviation, Ship Upright.	Deviation, Ship heeling 10° to Starboard.	Deviation, Ship heeling 10° to Port.	Deviation, Ship Upright.	Deviation, Ship heeling 10° to Starboard.
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
2 45 E.	25 30 W.	53 45 W.	3 40 E.	15 20 W.	37 35 W.	13 50 W.	24 10 W.	39 10 W.	4 15 W.	13 50 W.	24 15 W.	3 5 W.	12 30 W.	23 25 W.
4 45 E.	24 50 W.	54 30 W.	5 30 E.	12 50 W.	36 30 W.	7 20 W.	18 45 W.	34 0 W.	0 45 W.	9 45 W.	19 30 W.	0 50 E.	7 45 W.	18 25 W.
4 15 E.	21 45 W.	52 40 W.	6 30 E.	9 45 W.	33 30 W.	2 55 W.	12 10 W.	26 0 W.	1 10 E.	6 30 W.	15 15 W.	3 30 E.	3 45 W.	13 15 W
2 30 E.	18 45 W.	44 0 W.	6 30 E.	6 30 W.	26 40 W.	0 0	6 15 W.	18 50 W.	2 45 E.	3 20 W.	11 15 W.	5 0 E.	0 15 W.	8 0 W.
0 10 W.	16 20 W.	33 30 W.	5 55 E.	4 35 W.	18 25 W.	1 40 E.	2 0 W.	12 45 W.	3 30 E.	0 35 W.	7 25 W.	6 30 E.	2 10 E.	4 0 W.
3 25 W.	14 40 W.	27 0 W.	4 40 E.	3 0 W.	12 50 W.	3 0 E.	0 45 E.	7 10 W.	4 15 E.	1 0 E.	4 0 W.	6 55 E.	3 40 E.	0 15 W.
6 40 W.	13 25 W.	22 20 W.	2 50 E.	1 50 W.	8 35 W.	3 45 E.	2 45 E.	2 50 W.	4 30 E.	2 5 E.	0 50 W.	6 50 E.	4 50 E.	2 40 E.
9 40 W.	12 30 W.	17 45 W.	0 55 E.	1 0 W.	5 30 W.	4 15 E.	4 10 E.	0 40 E.	3 50 E.	2 50 E.	1 30 E.	6 30 E.	5 25 E.	5 25 E.
12 0 W.	11 55 W.	13 0 W.	0 40 W.	0 5 W.	1 40 W.	4 0 E.	5 15 E.	4 0 E.	3 0 E.	3 25 E.	3 50 E.	5 15 E.	6 25 E.	7 40 E.
13 45 W.	9 50 W.	7 40 W.	2 30 W.	0 35 E.	2 5 E.	3 55 E.	6 50 E.	7 25 E.	2 0 E.	3 50 E.	6 15 E.	3 50 E.	6 50 E.	9 50 E.
14 45 W.	7 27 W.	2 0 W.	3 55 W.	1 30 E.	6 30 E.	4 0 E.	8 50 E.	11 0 E.	0 50 E.	4 50 E.	8 45 E.	2 0 E.	7 15 E.	12 45 E.
15 10 W.	4 30 W.	4 15 E.	5 0 W.	3 0 E.	10 50 E.	4 30 E.	11 10 E.	15 45 E.	0 10 W.	5 50 E.	11 30 E.	0 30 E.	8 0 E.	15 0 E.
14 25 W.	0 30 W.	12 55 E.	5 40 W.	4 50 E.	15 20 E.	5 45 E.	14 15 E.	21 15 E.	0 45 W.	7 30 E.	15 0 E.	0 30 W.	9 10 E.	17 40 E.
12 0 W.	5 10 E.	23 10 E.	5 45 W.	7 45 E.	20 40 E.	7 55 E.	18 40 E.	26 50 E.	0 40 W.	9 40 E.	18 45 E.	1 10 W.	10 50 E.	20 10 E
7 30 W.	13 55 E.	35 30 E.	4 45 W.	11 50 E.	25 50 E.	11 30 E.	23 45 E.	32 40 E.	0 15 W.	11 50 E.	22 15 E.	1 30 W.	12 40 E.	22 45 E.
1 0 W.	24 20 E.	45 50 E.	3 0 W.	15 50 E.	29 30 E.	14 30 E.	27 45 E.	37 30 E.	0 40 E.	14 25 E.	25 0 E.	1 15 W.	14 0 E.	24 36 E.
6 0 E.	32 30 E.	53 50 E.	1 0 W.	18 30 E.	32 30 E.	16 50 E.	29 50 E.	40 0 E.	1 35 E.	15 45 E.	26 30 E.	0 5 W.	15 0 E.	26 0 E.
12 10 E.	37 15 E.	57 25 E.	0 50 E.	20 0 E.	33 40 E.	17 40 E.	29 50 E.	39 50 E.	2 0 E.	16 10 E.	26 20 E.	0 35 E.	14 50 E.	24 45 E.
16 0 E.	39 0 E.	57 30 E.	2 15 E.	20 30 E.	33 10 E.	17 45 E.	28 30 E.	37 45 E.	2 30 E.	15 30 E.	24 50 E.	0 35 E.	13 45 E.	23 45 E.
18 40 E.	38 15 E.	54 50 E.	3 0 E.	19 20 E.	30 50 E.	16 30 E.	25 45 E.	33 25 E.	2 5 E.	14 45 E.	22 0 E.	0 0	11 40 E.	20 20 E
20 15 E.	35 50 E.	49 15 E.	3 15 E	17 25 E.	26 45 E.	13 55 E.	21 45 E.	27 20 E.	1 50 E.	12 45 E.	18 0 E.	0 45 W.	8 40 E.	15 40 E
20 0 E.	31 30 E.	41 40 E.	3 0 E.	14 15 E.	20 50 E.	10 30 E.	16 35 E.	20 10 E.	0 50 E.	9 50 E.	13 30 E.	1 50 W.	5 10 E.	10 20 E.
18 55 E.	25 50 E.	32 30 E.	2 30 E.	10 20 E.	14 25 E.	6 0 E.	10 35 E.	14 10 E.	0 5 W.	6 15 E.	8 0 E.	3 10 W.	1 25 E.	4 20 E.
17 0 E.	19 50 E.	22 45 E.	1 20 E.	6 10 E.	7 55 E.	1 10 E.	3 50 E.	3 45 E.	1 15 W.	1 55 E.	2 5 E.	5 0 W.	2 50 W.	1 30 W.
14 0 E.	13 35 E.	13 10 E.	0 20 E.	1 30 E.	0 50 E.	3 30 W.	3 0 W.	4 45 W.	3 0 W.	1 45 W.	4 0 W.	6 45 W.	6 45 W.	7 20 W.
10 45 E.	6 50 E.	2 50 E.	0 40 W.	2 10 W.	6 15 W.	8 15 W.	9 35 W.	13 20 W.	5 10 W.	6 5 W.	10 5 W.	8 40 W.	10 35 W.	12 45 W.
7 0 E.	0 5 E.	7 25 W.	1 35 W.	6 40 W.	13 20 W.	13 10 W.	15 55 W.	21 40 W.	7 35 W.	10 15 W.	16 0 W.	10 20 W.	14 0 W.	17 40 W.
3 30 E.	6 40 W.	17 35 W.	2 10 W.	10 40 W.	20 0 W.	17 10 W.	21 20 W.	29 10 W.	8 15 W.	13 45 W.	21 5 W.	11 15 W.	16 50 W.	22 25 W.
0 5 E.	13 0 W.	27 20 W.	2 40 W.	13 45 W.	26 0 W.	20 40 W.	25 35 W.	35 35 W.	10 25 W.	16 30 W.	25 0 W.	11 50 W.	18 0 W.	25 35 W.
2 30 W.	18 10 W.	36 30 W.	2 20 W.	15 45 W.	30 50 W.	22 25 W.	28 5 W.	40 0 W.	10 30 W.	17 40 W.	27 20 W.	11 30 W.	18 30 W.	27 30 W.
3 0 W.	22 5 W.	44 20 W.	1 0 W.	16 45 W.	34 40 W.	21 45 W.	28 35 W.	42 45 W.	9 35 W.	17 20 W.	27 45 W.	10 0 W.	17 40 W.	27 40 W.
1 15 W.	24 30 W.	50 10 W.	1 0 E.	16 30 W.	36 45 W.	19 15 W.	27 30 W.	42 35 W.	7 15 W.	16 10 W.	26 15 W.	7 5 W.	16 0 W.	26 40 W.

Magnetic Co-efficients.

° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
+ 1 55	+ 1 48	− 0 7	+ 0 21	+ 1 8	− 1 10	+ 0 31	+ 2 7	+ 0 5	− 1 3	+ 0 51	+ 0 25	− 1 27	+ 0 31	+ 0 51
−12 38	−12 57	−14 40	− 0 21	− 1 10	− 1 23	+ 4 31	+ 5 0	+ 5 39	+ 3 32	+ 3 11	+ 4 19	+ 6 19	+ 6 57	+ 7 56
− 2 0	−25 29	−49 19	+ 2 7	−15 28	−33 6	−14 17	−24 40	−37 17	− 2 43	−13 54	−23 29	− 1 33	−12 50	−23 17
+ 8 41	+ 8 7	+ 6 47	+ 4 26	+ 5 19	+ 4 14	+ 7 51	+ 7 35	+ 7 24	+ 4 5	+ 5 8	+ 5 10	+ 4 38	+ 4 51	+ 4 56
+ 0 55	+ 1 6	− 0 29	+ 0 39	+ 0 26	− 1 12	+ 0 36	+ 0 52	+ 0 29	− 0 55	+ 0 11	+ 0 16	− 0 23	+ 0 52	+ 0 32

ne "Simla" was being trimmed from heel to starboard to heel to port the deviations of the different compasses equently observed, so as to ascertain, by comparison with the observations made while the ship was being whether the induced magnetism changed immediately, or took some time for its complete development. llowing tables give the record of these observations, and show the difference of deviation due to each degree of obtained by passing a fair curve as nearly as possible through the projection of each observation.

Ship's Head, Correct Magnetic.	Heel.	Steering Compass.		Compass over the Companion.		Dipping Needle Compass.		Standard Compass.		Forward Com
		Head by Compass.	Deviation.	Head by Compass.	Deviation.	Head by Compass.	Deviation.	Head by Compass.	Deviation.	Head by Compass.
° ′	Starboard. ° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N. 21 45 W.	10 38	N. 27 30 E.	49 15 W.	N. 12 45 E.	34 30 W.	N. 12 30 E.	34 15 W.	N. 3 30 E.	25 15 W.	N. 1 30 E.
N. 22 30 W.	..	..	50 0 W.	..	35 15 W.	..	..	..	..	..
N. 23 30 W.	..	..	..	..	..	..	..	N. 2 30 E.	26 0 W.	North.
N. 22 35 W.	9 22	N. 27 30 E.	50 5 W.	N. 10 45 E.	33 20 W.	N. 12 30 E.	35 5 W.	N. 3 0 E.	25 35 W.	N. 0 30 E.
..	..	N. 27 0 E.	49 35 W.	N. 10 30 E.	33 5 W.	..	..	..	..	..
N. 22 35 W.	9 0	N. 27 0 E.	49 35 W.	N. 10 15 E.	32 50 W.	..	..	N. 3 30 E.	26 5 W.	N. 0 15 E.
N. 22 35 W.	8 0	N. 25 45 E.	48 20 W.	N. 9 0 E.	31 35 W.	N. 11 30 E.	34 5 W.	N. 2 0 E.	24 35 W.	N. 0 15 W.
N. 22 35 W.	7 0	N. 23 0 E.	45 35 W.	N. 7 45 E.	30 20 W.	N. 11 0 E.	33 35 W.	N. 1 55 E.	24 30 W.	N. 0 45 W.
N. 21 50 W.	6 0	N. 21 30 E.	43 20 W.	N. 5 45 E.	27 35 W.	N. 10 30 E.	32 20 W.	N. 0 15 E.	22 5 W.	N. 1 30 W.
22 5	..	..	43 35 W.	..	27 50 W.	..	32 35 W.	..	22 20 W.	..
N. 22 35 W.	5 0	N. 20 0 E.	42 35 W.	N. 4 30 E.	27 5 W.	N. 9 15 E.	31 50 W.	N. 0 10 W.	22 25 W.	N. 2 15 W.
N. 22 20 W.	4 0	N. 18 0 E.	40 20 W.	N. 3 10 E.	25 30 W.	N. 8 45 E.	31 5 W.	N. 1 20 W.	20 0 W.	N. 2 45 W.
N. 22 5 W.	3 0	N. 16 0 E.	38 5 W.	North.	22 5 W.	N. 8 15 E.	30 20 W.	N. 1 40 W.	20 25 W.	N. 3 0 W.
N. 28 30 W.	1 0	N. 6 30 E.	35 0 W.	N. 8 0 W.	20 30 W.	N. 2 0 E.	30 30 W.	N. 9 20 W.	19 10 W.	N. 10 0 W.
N. 23 25 W.	0 0	N. 7 0 E.	30 25 W.	N. 6 45 W.	16 40 W.	N. 5 30 E.	28 55 W.	N. 5 0 W.	18 25 W.	N. 6 0 W.
N. 22 55 W.	Port. 0 30	N. 6 30 E.	29 25 W.	N. 6 15 W.	16 40 W.	N. 5 0 E.	27 55 W.	N. 5 0 W.	17 55 W.	N. 6 0 W.
N. 23 25 W.	1 30	N. 4 0 E.	27 25 W.	N. 7 20 W.	16 5 W.	N. 3 30 E.	26 55 W.	N. 6 40 W.	16 45 W.	N. 7 30 W.
N. 23 25 W.	2 30	N. 1 0 E.	24 25 W.	N. 9 0 W.	14 25 W.	N. 3 0 E.	26 25 W.	N. 8 0 W.	15 25 W.	N. 8 0 W.
N. 23 40 W.	3 45	N. 2 45 W.	20 55 W.	N. 11 45 W.	11 55 W.	N. 1 30 E.	25 10 W.	N. 9 0 W.	14 40 W.	N. 9 30 W.
N. 23 40 W.	5 0	N. 6 30 W.	17 10 W.	N. 15 45 W.	7 55 W.	N. 0 30 E.	24 10 W.	N. 9 30 W.	14 10 W.	N. 10 30 W.
N. 24 0 W.	6 30	N. 12 30 W.	11 30 W.	N. 17 15 W.	6 45 W.	N. 1 30 W.	22 30 W.	N. 12 0 W.	12 0 W.	N. 12 0 W.

Ship's Head, Correct Magnetic.	Heel.	Steering Compass.		Compass over the Companion.		Dipping Needle Compass.		Standard Compass.		Forward Com
		Deviation.	Deviation from Heeling.	Deviation.	Deviation from Heeling.	Deviation.	Deviation from Heeling.	Deviation.	Deviation from Heeling.	Deviation.
° ′	Starboard. ° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N. 23 0 W.	12 0	53 5 W.	21 55 W.	35 40 W.	17 0 W.	35 30 W.	7 40 W.	27 40 W.	9 25 W.	24 2 W.
..	11 0	51 58 W.	20 48 W.	34 45 W.	16 5 W.	35 0 W.	7 10 W.	27 5 W.	8 50 W.	23 38 W.
..	10 0	50 45 W.	19 35 W.	33 40 W.	15 0 W.	34 25 W.	6 35 W.	26 25 W.	8 10 W.	23 15 W.
..	9 0	49 15 W.	18 5 W.	32 35 W.	13 55 W.	33 50 W.	6 0 W.	25 45 W.	7 30 W.	22 45 W.
..	8 0	47 45 W.	16 35 W.	31 25 W.	12 45 W.	33 15 W.	5 25 W.	24 55 W.	6 40 W.	22 18 W.
..	7 0	46 0 W.	14 50 W.	29 55 W.	11 15 W.	32 35 W.	4 45 W.	24 5 W.	5 50 W.	21 42 W.
..	6 0	44 10 W.	13 0 W.	28 35 W.	9 55 W.	32 0 W.	4 10 W.	23 20 W.	5 5 W.	21 10 W.
..	5 0	42 10 W.	11 0 W.	27 5 W.	8 25 W.	31 20 W.	3 30 W.	22 27 W.	4 12 W.	20 35 W.
..	4 0	40 10 W.	9 0 W.	25 30 W.	6 50 W.	30 45 W.	2 55 W.	21 45 W.	3 30 W.	20 0 W.
..	3 0	38 10 W.	7 0 W.	23 45 W.	5 5 W.	30 0 W.	2 10 W.	20 55 W.	2 40 W.	19 20 W.
..	2 0	35 55 W.	4 45 W.	22 10 W.	3 30 W.	29 10 W.	1 20 W.	20 0 W.	1 45 W.	18 42 W.
..	1 0	33 45 W.	2 35 W.	20 25 W.	1 45 W.	28 35 W.	0 45 W.	19 5 W.	0 50 W.	18 2 W.
..	0 0	31 10 W.	0 0	18 40 W.	0 0	27 50 W.	0 0	18 15 W.	0 0	17 20 W.
..	Port. 1 0	28 35 W.	2 35 E.	16 58 W.	1 42 E.	27 0 W.	0 50 E.	17 25 W.	0 50 E.	16 38 W.
..	2 0	25 35 W.	5 35 E.	15 5 W.	3 35 E.	26 5 W.	1 45 E.	16 30 W.	1 45 E.	15 50 W.
..	3 0	22 55 W.	8 15 E.	13 20 W.	5 20 E.	25 10 W.	2 40 E.	15 30 W.	2 45 E.	15 5 W.
..	4 0	20 0 W.	11 10 E.	11 35 W.	7 5 E.	24 15 W.	3 35 E.	14 30 W.	3 45 E.	14 20 W.
..	5 0	16 45 W.	14 25 E.	9 35 W.	9 5 E.	23 25 W.	4 25 E.	13 33 W.	4 42 E.	13 30 W.
..	6 0	13 40 W.	17 30 E.	7 40 W.	11 0 E.	22 25 W.	5 25 E.	12 33 W.	5 42 E.	12 35 W.
..	7 0	10 0 W.	21 0 E.	5 35 W.	13 5 E.	21 25 W.	6 25 E.	11 25 W.	6 50 E.	11 40 W.
..	8 0	6 20 W.	24 50 E.	3 25 W.	15 15 E.	20 5 W.	7 45 E.	10 10 W.	8 5 E.	10 35 W.
..	9 0	2 45 W.	28 25 E.	1 5 W.	17 35 E.	19 0 W.	8 50 E.	9 5 W.	9 10 E.	9 30 W.
..	10 0	1 0 E.	32 10 E.	1 10 E.	19 50 E.	17 40 W.	10 10 E.	7 50 W.	10 25 E.	8 30 W.
Deviation due to Ship heeling from 10° to port to 10° to Starboard -		51 45 E.	..	34 50 E	..	16 45 E.	..	18 35 E.	..	14
Mean difference for each degree of heel of the Ship - - -		2 35 E.	..	1 45 E.	..	0 50 E.	..	0 56 E.	..	0 4

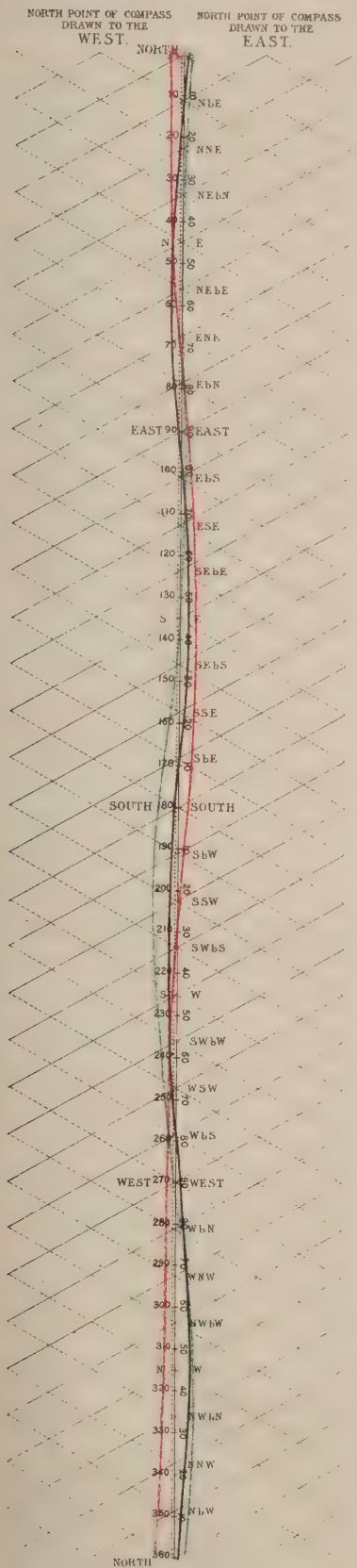
On the 24th August, when the ship was swung on an even beam, the deviations for these compasses, ship's head in the same direction, were respectively 24° 40′ W., 18° 40′ W., 27° 50′ W., 18° 15′ W., 17° 20′ W., thus showing that when the ship was trimmed upright on the 26th August after being he 10° to starboard she retained enough of the induced magnetism due to heeling to produce the follo deviations: 6° 30′, 2° 50′, 2° 30′, 2° 55′, and 2° 40′.

SLIE

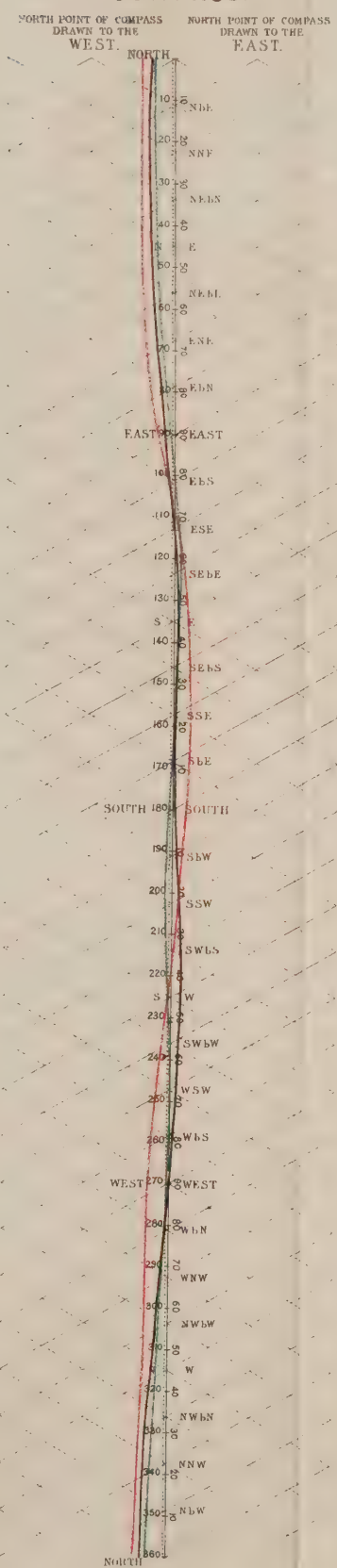
THE BLACK CURVES SHOW THE DEVIATIONS WITH SHIP UPRI

THE BLUE CURVES THE DEVIA

SKYLIGHT COMPASS.



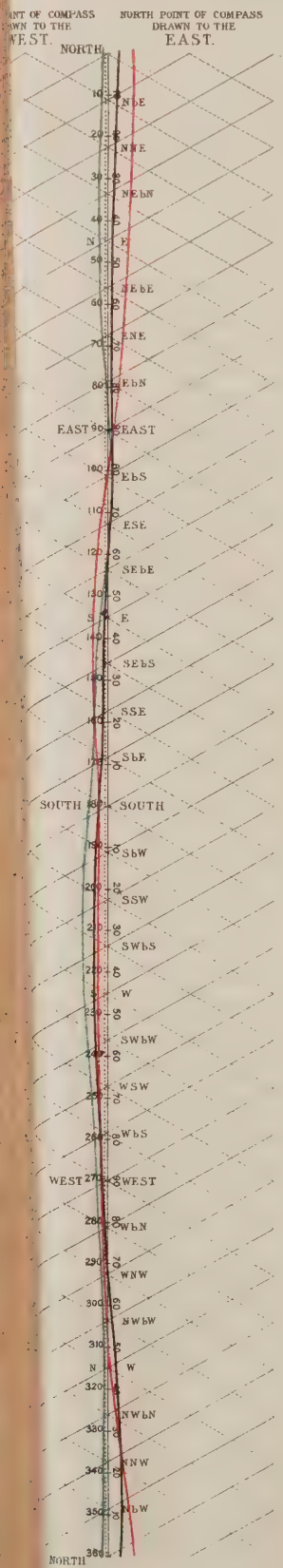
GOWLAND'S COMPASS.



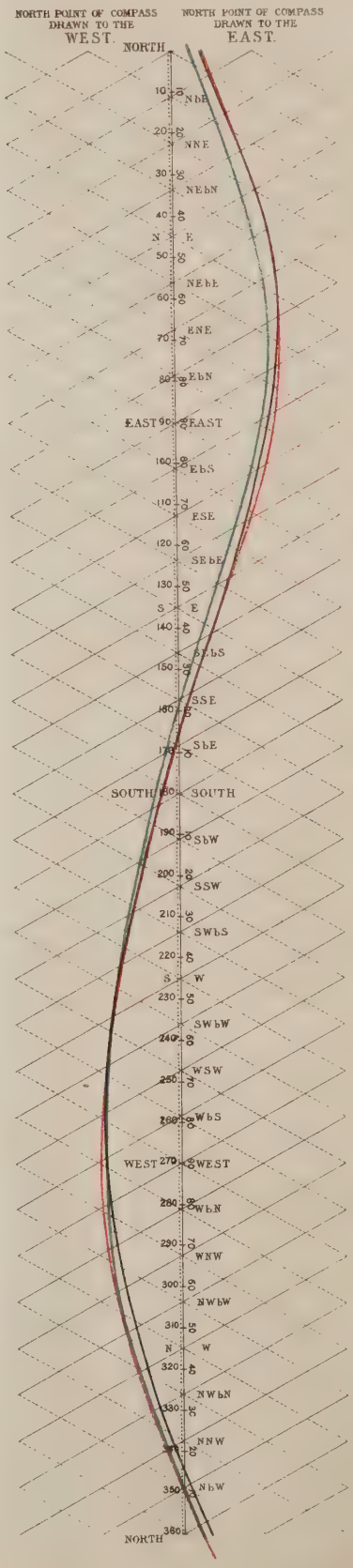
E DONARD.

T; THE RED CURVES THE DEVIATIONS WITH THE SHIP HEELED 10° TO PORT;
ONS WITH THE SHIP HEELED 10° TO STARBOARD.

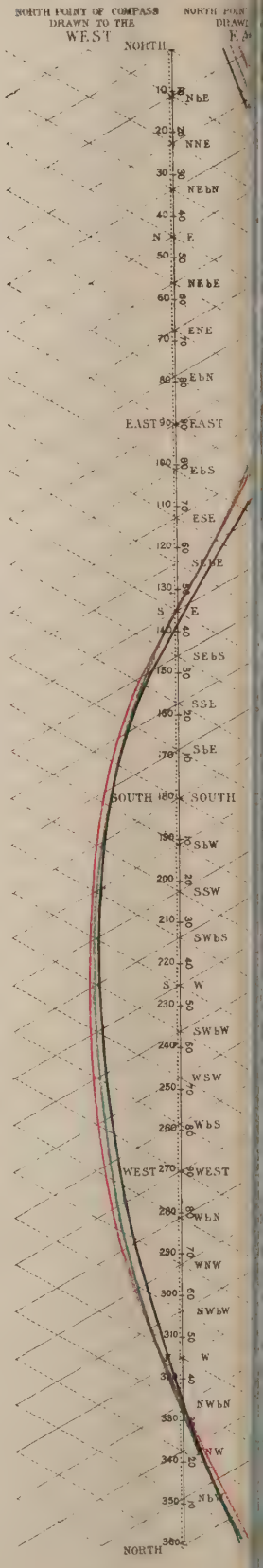
STEERING COMPASS.



COMPASS ON THE PORT SIDE OF SKYLIGHT.



COMPASS ON STARBOARD SIDE OF S



APPENDIX D.

Experiments to ascertain the Effect of Heeling upon the Compasses of the Iron Ship "Slieve Donard."

his vessel, before swinging, had been lying for some time with her head to the west. The operation of ging extended over several days, and as the bit-by-bit manner in which it was effected may have enced the results, the observations for the dipping needle compass, which, as on former occasions, n charge of Mr. Towson, are given in the order in which they were made. The other compasses were rved at the same time.

	Ship's Head correct Magnetic.	Head by Compass.	Deviation.	Heel. P. Port. S. Starboard.
9.	° ′	° ′	° ′	° ′
21	W. 2 30 S.	N. 71 30 W.	21 0 W.	0 30 P.
	S. 84 0 W.	N. 73 30 W.	22 30 W.	0 0
	S. 23 0 W.	S. 45 0 W.	22 0 W.	...
	S. 2 0 W.	S. 23 0 W.	21 0 W.	...
	S. 43 30 W.	S. 67 30 W.	24 0 W.	...
22	S. 88 30 W.	N. 68 30 W.	23 0 W.	10 7 P.
	N. 64 30 W.	N. 49 0 W.	15 30 W.	11 15 P.
	N. 53 0 W.	N. 42 0 W.	11 0 W.	10 30 P.
	N. 39 0 W.	N. 32 45 W.	6 15 W.	10 0 P.
	N. 26 20 W.	N. 26 40 W.	0 20 E.	...
	N. 26 50 W.	N. 26 55 W.	0 5 E.	...
	N. 19 15 W.	N. 21 40 W.	2 15 E.	...
	N. 4 45 W.	N. 14 0 W.	9 15 E.	...
23	N. 12 30 W.	N. 16 30 W.	4 0 E.	10 0 P.
	N. 0 30 W.	N. 11 0 W.	10 30 E.	...
	N. 22 30 E.	N. 1 15 E.	21 15 E.	...
	N. 45 0 E.	N. 14 0 E.	31 0 E.	...
	N. 64 0 E.	N. 24 0 E.	40 0 E.	...
	S. 87 0 E.	N. 54 0 E.	39 0 E.	...
	...	N. 55 0 E.	38 0 E.	...
	S. 55 15 E.	S. 64 30 E.	9 15 E.	...
	S. 40 0 E.	S. 33 15 E.	6 45 W.	10 30 P.
	S. 22 30 E.	S. 2 30 E.	20 0 W.	11 0 P.
	S. 8 45 E.	S. 17 30 W.	26 15 W.	...
	S. 10 30 W.	S. 37 30 W.	27 0 W.	...
	S. 23 30 W.	S. 52 30 W.	29 0 W.	11 15 P.
	S. 32 0 W.	S. 58 0 W.	26 0 W.	...
	S. 42 30 W.	S. 70 30 W.	28 0 W.	...
	S. 48 0 W.	S. 75 0 W.	27 0 W.	11 30 P.
25	N. 80 30 W.	N. 67 30 W.	21 0 W.	1 0 S.
	N. 70 30 W.	N. 54 15 W.	16 15 W.	...

	Ship's Head correct Magnetic.	Head by Compass.	Deviation.	Heel. P. Port. S. Starboard.
1859. Feb. 25 *continued.*	° ′	° ′	° ′	° ′
	N. 41 0 W.	N. 34 30 W.	6 30 W.	1 30 S.
	N. 24 0 W.	N. 24 0 W.	0 0	1 23 S.
	N. 4 45 W.	N. 13 30 W.	8 45 E.	1 15 S.
	N. 7 0 E.	N. 6 45 W.	13 45 E.	...
	N. 19 30 E.	N. 0 25 W.	19 55 E.	...
	N. 50 30 E.	N. 18 0 E.	32 30 E.	...
	N. 68 30 E.	N. 32 30 E.	36 0 E.	1 0 S.
	N. 89 0 E.	N. 51 45 E.	37 15 E.	0 30 S.
	S. 69 30 E.	N. 81 0 E.	28 30 E.	...
	S. 49 45 E.	S. 57 30 E.	7 45 E.	0 0
	S. 22 0 E.	S. 1 30 E.	20 30 W.	...
	S. 16 30 E.	S. 6 30 E.	10 0 W.	1 0 S.
	S. 10 30 E.	S. 6 0 W.	16 30 W.	10 0 S.
	S. 18 0 E.	S. 4 0 E.	14 0 W.	...
	S. 45 0 E.	S. 45 0 E.	0 0	...
	S. 62 30 E.	S. 82 0 E.	19 30 E.	10 30 S.
	S. 65 30 E.	East.	24 30 E.	...
	S. 86 15 E.	N. 60 30 E.	33 15 E.	11 0 S.
	N. 89 0 E.	N. 51 30 E.	37 30 E.	...
	N. 65 0 E.	N. 30 0 E.	35 0 E.	...
	N. 44 0 E.	N. 14 30 E.	29 30 E.	...
	N. 35 0 E.	N. 9 0 E.	24 0 E.	...
	N. 21 0 E.	N. 1 30 E.	19 30 E.	...
	N. 5 0 E.	N. 8 30 W.	13 30 E.	11 15 S.
	N. 27 30 W.	N. 21 30 W.	6 0 W.	11 0 S.
	N. 49 0 W.	N. 44 0 W.	9 0 W.	...
	N. 62 0 W.	N. 48 30 W.	13 30 W.	...
	N. 82 30 W.	N. 65 15 W.	17 15 W.	...
	S. 66 30 W.	S. 88 30 W.	22 0 W.	10 45 S.
	S. 55 0 W.	S. 78 0 W.	23 0 W.	...
	S. 74 30 W.	N. 84 0 W.	21 30 W.	...
	S. 88 45 W.	N. 70 0 W.	21 15 W.	9 30 S.

"Slieve Donard"—*continued.*

Deviation Tables for Ship upright and with a List to Starboard and to Port of 11° obtained from Curve through the Projection of Observations made in the Queen's Basin, Liverpool, Aug. 21 to 25, 1859.

Ship's Head by (disturbed) Compass.	Steering Compass. (Compensated.)			Upper Steering Compass. (Compensated.)			Skylight Compass. (Compensated.)			Mast Compass	
	11° Heel to Port.	Ship upright.	11° Heel to Starboard.	11° Heel to Port.	Ship upright.	11° Heel to Starboard.	11° Heel to Port.	Ship upright.	11° Heel to Starboard.	11° Heel to Port.	Ship upright.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N.	8 0 E.	2 40 E.	0 25 W.	8 0 W.	7 20 W.	6 0 W.	3 25 W.	0 25 E.	2 45 E.	5 15 E.	2 50 E.
N. by E.	8 0 E.	2 10 E.	1 0 W.	8 30 W.	7 20 W.	5 50 W.	3 20 W.	0 40 W.	2 0 E.	7 30 E.	5 0 E.
N.N.E.	7 45 E.	1 30 E.	1 30 W.	8 30 W.	7 20 W.	5 35 W.	3 0 W.	1 15 W.	1 35 E.	9 30 E.	7 20 E.
N.E. by N.	7 15 E.	1 10 E.	1 45 W.	8 45 W.	6 50 W.	5 30 W.	2 45 W.	2 0 W.	1 0 E.	11 15 E.	9 30 E.
N.E.	6 20 E.	0 45 E.	1 30 W.	8 45 W.	6 30 W.	4 45 W.	2 0 W.	2 10 W.	0 35 E.	12 15 E.	11 0 E.
N.E. by E.	5 40 E.	0 30 E.	0 50 W.	8 30 W.	5 50 W.	4 0 W.	1 15 W.	2 40 W.	0 40 E.	12 45 E.	12 45 E.
E.N.E.	4 45 E.	0 30 E.	0 0	8 0 W.	5 0 W.	3 0 W.	0 0	2 10 W.	0 45 E.	12 10 E.	13 30 E.
E. by N.	3 45 E.	0 40 E.	0 40 E.	7 0 W.	3 45 W.	1 50 W.	1 10 E.	1 50 W.	1 30 E.	11 45 E.	13 40 E.
E.	2 20 E.	0 40 E.	0 45 E.	5 20 W.	2 30 W.	0 40 W.	2 0 E.	0 45 W.	2 0 E.	10 50 E.	13 20 E.
E. by S.	0 40 E.	0 45 E.	0 45 E.	0 30 W.	1 15 W.	0 20 E.	3 15 E.	0 20 E.	1 30 E.	9 40 E.	12 40 E.
E.S.E.	1 15 W.	0 30 E.	0 30 E.	3 0 E.	0 0	1 20 E.	4 30 E.	1 40 E.	1 10 E.	8 0 E.	11 0 E.
S.E. by E.	2 30 W.	0 20 E.	0 0	5 20 E.	0 50 E.	1 50 E.	5 30 E.	2 15 E.	0 30 E.	6 10 E.	9 0 E.
S.E.	2 45 W.	0 0	0 45 W.	6 30 E.	1 0 E.	1 55 E.	5 50 E.	2 0 E.	0 0	4 30 E.	7 0 E.
S.E. by S.	3 20 W.	0 20 W.	1 15 W.	6 40 E.	0 50 E.	1 40 E.	5 40 E.	1 45 E.	0 45 W.	2 40 E.	4 40 E.
S.S.E.	3 0 W.	1 0 W.	2 35 W.	6 40 E.	0 30 E.	1 0 E.	5 0 E.	0 45 E.	1 45 W.	0 40 E.	1 50 E.
S. by E.	2 30 W.	1 50 W.	3 45 W.	5 50 E.	0 30 E.	0 20 E.	4 30 E.	0 20 W.	3 20 W.	1 5 W.	0 50 W.
S.	1 40 W.	2 5 W.	4 45 W.	5 0 E.	1 0 E.	0 35 W.	3 30 E.	1 0 W.	5 30 W.	2 40 W.	3 30 W.
S. by W.	1 15 W.	2 40 W.	5 30 W.	4 0 E.	1 30 E.	1 0 W.	2 40 E.	1 40 W.	5 40 W.	6 30 W.	6 30 W.
S.S.W.	1 0 W.	2 55 W.	5 55 W.	2 40 E.	2 0 E.	1 10 W.	1 25 E.	2 15 W.	5 50 W.	5 40 W.	8 30 W.
S.W. by S.	1 20 W.	3 30 W.	6 0 W.	1 30 E.	2 30 E.	1 0 W.	0 20 E.	2 30 W.	6 0 W.	7 20 W.	11 0 W.
S.W.	1 30 W.	3 30 W.	5 35 W.	0 45 E.	2 0 E.	0 30 W.	0 20 W.	2 20 W.	5 40 W.	8 0 W.	12 10 W.
S.W. by W.	1 30 W.	3 30 W.	4 50 W.	0 30 W.	2 0 E.	0 0	0 45 W.	2 0 W.	5 0 W.	9 15 W.	13 0 W.
W.S.W.	1 20 W.	2 50 W.	3 15 W.	2 20 W.	1 15 E.	0 20 E.	1 0 W.	1 35 W.	3 50 W.	10 0 W.	13 20 W.
W. by S.	1 10 W.	2 15 W.	2 5 W.	4 0 W.	0 30 E.	0 0	1 0 W.	0 30 W.	2 10 W.	11 0 W.	12 50 W.
W.	0 45 W.	1 30 W.	2 5 W.	5 10 W.	0 0	0 15 W.	1 0 W.	1 0 E.	0 15 E.	11 15 W.	11 45 W.
W. by N.	0 15 W.	0 40 W.	1 20 W.	5 30 W.	1 0 W.	1 0 W.	1 0 W.	2 10 E.	2 10 E.	11 0 W.	10 0 W.
W.N.W.	0 20 E.	0 20 E.	0 50 W.	5 30 W.	1 50 W.	1 30 W.	1 15 W.	3 0 E.	3 45 E.	10 30 W.	8 15 W.
N.W. by W.	1 0 E.	0 30 E.	0 50 W.	5 30 W.	3 20 W.	2 0 W.	1 40 W.	3 40 E.	4 40 E.	8 50 W.	6 30 W.
N.W.	1 30 E.	2 0 E.	0 40 W.	5 45 W.	4 30 W.	2 55 W.	1 55 W.	3 40 E.	5 0 E.	7 0 W.	4 45 W.
N.W. by N.	3 10 E.	2 45 E.	0 30 W.	6 15 W.	5 45 W.	3 50 W.	2 30 W.	3 15 E.	5 10 E.	4 30 W.	2 40 W.
N.N.W.	5 45 E.	3 3 E.	0 10 W.	6 45 W.	6 30 W.	4 40 W.	2 50 W.	2 10 E.	4 40 E.	1 15 W.	0 45 W.
N. by W.	6 15 E.	3 3 E.	0 15 W.	7 15 W.	7 0 W.	5 30 W.	3 20 W.	1 30 E.	3 40 E.	2 10 E.	1 0 E.

Magnetic Co-efficients obtained from the Deviations on the Sixteen Principal Points.

	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
A	+1 28	−0 6	−1 50	−2 28	−2 7	−1 42	+0 21	+0 5	−0 1	+ 0 26	+ 0 1
B	+1 13	+0 52	+1 23	+0 38	−1 12	+0 1	+1 52	−0 36	+0 37	+11 5	+12 2
C	+4 40	+2 14	+1 49	−7 5	−4 33	−2 57	−3 21	+0 40	+3 59	+ 3 27	+ 3 4
D	+1 28	−1 8	−1 26	−1 9	−0 14	−1 2	−1 30	−2 33	−2 37	+ 1 40	− 0 4
E	+0 48	+0 23	−1 2	+1 34	−1 0	−1 24	−0 16	−0 13	−0 55	+ 0 38	− 0 3

"Slieve Donard"—*continued.*

iation Tables for Ship upright, and with a List to Starboard and to Port of 11°, obtained from Curves passed through the Projection of Observations made in the Queen's Basin, Liverpool, Aug. 21 to 25, 1859—*continued.*

p's Head by sturbed) ompass.	Compass placed on Port Side of the Skylight.			Compass placed on Starboard Side of the Skylight.			Compass placed over the After Hatch.	Dipping Needle Compass.		
	11° Heel to Port.	Ship upright.	11° Heel to Starboard.	11° Heel to Port.	Ship upright.	11° Heel to Starboard.	Ship upright.	11° Heel to Port.	Ship upright.	11° Heel to Starboard.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° °
N.	11 30 E.	10 30 E.	6 15 E.	26 0 E.	20 0 E.	22 30 E.	13 0 E.	21 30 E.	20 0 E.	18 50 E.
. by E.	18 15 E.	17 45 E.	13 0 E.	31 30 E.	25 40 E.	28 15 E.	19 30 E.	31 15 E.	28 30 E.	26 40 E.
.N.E.	23 40 E.	23 10 E.	18 30 E.	35 0 E.	29 50 E.	32 15 E.	24 30 E.	37 50 E.	34 50 E.	32 30 E.
. by N.	27 20 E.	26 30 E.	23 0 E.	36 40 E.	32 50 E.	34 0 E.	28 0 E.	40 45 E.	37 30 E.	35 30 E.
N.E.	29 50 E.	27 50 E.	26 0 E.	36 0 E.	34 0 E.	33 45 E.	29 45 E.	40 50 E.	37 0 E.	36 15 E.
. by E.	30 30 E.	28 10 E.	26 45 E.	34 0 E.	33 50 E.	32 0 E.	30 0 E.	39 15 E.	36 45 E.	35 20 E.
.N.E.	29 40 E.	27 20 E.	26 30 E.	30 40 E.	32 15 E.	28 50 E.	28 0 E.	36 0 E.	34 10 E.	32 50 E.
. by N.	27 40 E.	25 30 E.	24 30 E.	26 30 E.	29 0 E.	25 0 E.	25 50 E.	31 45 E.	30 10 E.	29 0 E.
E.	25 0 E.	23 0 E.	21 40 E.	21 45 E.	24 30 E.	20 30 E.	22 45 E.	25 45 E.	25 0 E.	24 0 E.
. by S.	21 30 E.	20 0 E.	18 20 E.	16 40 E.	18 50 E.	15 45 E.	18 30 E.	18 50 E.	19 10 E.	18 30 E.
.S.E.	17 45 E.	16 45 E.	15 0 E.	11 15 E.	13 0 E.	10 50 E.	13 40 E.	11 40 E.	15 20 E.	12 20 E.
. by E.	14 0 E.	13 0 E.	11 15 E.	5 45 E.	7 30 E.	5 50 E.	8 30 E.	4 50 E.	7 0 E.	6 0 E.
S.E.	10 0 E.	9 10 E.	7 40 E.	0 45 E.	1 30 E.	1 15 E.	3 0 E.	1 50 W.	0 40 E.	0 0
. by S.	6 30 E.	5 30 E.	4 20 E.	4 30 W.	4 0 W.	3 45 W.	2 0 W.	8 0 W.	5 30 W.	5 0 W.
.S.E.	3 0 E.	2 0 E.	1 15 E.	9 15 W.	9 0 W.	8 40 W.	7 15 W.	13 20 W.	10 35 W.	9 20 W.
by E.	0 0	1 10 W.	1 30 W.	13 30 W.	13 0 W.	13 0 W.	12 40 W.	17 45 W.	15 0 W.	12 50 W.
S.	3 0 W.	4 20 W.	4 30 W.	17 15 W.	16 0 W.	16 50 W.	17 45 W.	21 40 W.	17 50 W.	15 0 W.
by W.	6 0 W.	7 20 W.	7 20 W.	19 30 W.	18 0 W.	19 30 W.	21 30 W.	24 30 W.	20 0 W.	16 30 W.
.S.W.	8 45 W.	10 20 W.	10 10 W.	20 50 W.	19 45 W.	20 50 W.	25 0 W.	26 25 W.	21 15 W.	17 0 W.
. by S.	11 50 W.	13 0 W.	12 45 W.	22 0 W.	20 45 W.	22 0 W.	27 30 W.	27 10 W.	22 0 W.	17 50 W.
S.W.	14 30 W.	15 20 W.	15 15 W.	22 45 W.	21 40 W.	22 45 W.	29 0 W.	27 25 W.	22 30 W.	19 20 W.
. by W.	16 50 W.	17 30 W.	16 50 W.	23 0 W.	21 40 W.	23 0 W.	28 30 W.	28 10 W.	23 30 W.	20 50 W.
.S.W.	18 30 W.	19 10 W.	18 15 W.	22 45 W.	21 20 W.	22 20 W.	27 0 W.	28 25 W.	24 25 W.	22 10 W.
. by S.	20 0 W.	20 30 W.	19 30 W.	22 0 W.	20 15 W.	21 30 W.	24 30 W.	27 50 W.	24 45 W.	22 45 W.
W.	21 0 W.	21 0 W.	20 0 W.	20 50 W.	18 40 W.	19 50 W.	21 30 W.	26 50 W.	24 30 W.	22 30 W.
. by N.	21 45 W.	20 45 W.	20 30 W.	19 0 W.	16 20 W.	18 0 W.	17 0 W.	25 10 W.	23 20 W.	21 50 W.
.N.W.	21 45 W.	19 15 W.	20 30 W.	16 15 W.	13 20 W.	15 20 W.	12 20 W.	22 35 W.	21 0 W.	19 30 W.
. by W.	20 0 W.	17 0 W.	19 0 W.	11 30 W.	9 40 W.	11 30 W.	7 45 W.	19 10 W.	18 0 W.	16 45 W.
N.W.	16 45 W.	13 50 W.	16 0 W.	6 0 W.	5 0 W.	7 15 W.	3 45 W.	13 40 W.	13 0 W.	12 0 W.
W. by N.	11 10 W.	9 20 W.	11 45 W.	0 45 E.	0 20 E.	1 0 W.	0 20 E.	6 45 W.	6 15 W.	5 30 W.
.N.W.	3 45 W.	3 30 W.	5 15 W.	8 45 E.	6 0 E.	6 15 E.	4 0 E.	1 45 E.	1 45 E.	1 45 E.
by W.	4 30 E.	2 40 E.	0 30 E.	16 45 E.	12 30 E.	14 0 E.	8 15 E.	11 0 E.	10 0 E.	9 20 E.

Magnetic Co-efficients obtained from the Deviations on the Sixteen Principal Points.

	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
A	+ 2 39	+ 2 4	+ 0 49	+ 0 29	+ 2 17	+ 1 24	− 0 18	− 0 26	+ 0 52	+ 1 22
B	+24 9	+22 39	+21 49	+22 1	+21 34	+21 19	+22 16	+26 59	+25 26	+23 26
C	+ 6 46	+ 7 17	+ 5 51	+19 32	+17 25	+18 1	+17 9	+20 39	+17 31	+16 0
D	+ 5 31	+ 4 22	+ 4 40	+ 4 46	+ 4 9	+ 4 10	+ 0 24	+ 7 17	+ 6 43	+ 7 14
E	+ 1 11	+ 1 2	+ 0 8	− 1 56	− 0 33	+ 1 4	− 1 18	+ 0 24	+ 0 16	+ 0 40

APPENDIX E.

EXPERIMENTS to ascertain the Effect of HEELING on the COMPASSES of the Iron Sailing Ship "BEANN UAMHA."

This ship is of 1,166 tons register, and was built with her head about E. by S. Length of keel 200 feet, length over all 222 feet, beam 35 feet, depth of hold 23 feet. She was swung in the Brunswick Dock, April 20th to 22d. The arrangement of her steering compasses resembles that of the "Slieve Donard." The standard compass was placed near the break of the poop between the mizen and main masts, and a little to the starboard side of the middle line of the poop deck so as not to be in the way of the poop ladder which was exactly amidship. The spare compass was fixed for experiment a few feet further aft than the standard compass, and over the middle line of the poop deck. The ship was swung with a list to port first, and was trimmed to a starboard heel of 9° 30′, while her head was S. 3° W. At each swinging she was turned from N. by way of E. to S., &c., or from left to right.

"BEANN UAMHA."

DEVIATION TABLES for Ship upright and with a list to starboard and to port of 10°, obtained from curves passed through the projection of observations made in the BRUNSWICK DOCK, LIVERPOOL, April 20th to 22nd, 1861.

Ship's Head by (disturbed) Compass.	Steering Compass (compensated).			Upper Steering Compass (compensated).			Standard Compass (compensated*).			Spare Compass.		
	10° Heel to Port.	Ship Upright.	10° Heel to Starboard.	10° Heel to Port.	Ship Upright.	10° Heel to Starboard.	10° Heel to Port.	Ship Upright.	10° Heel to Starboard.	10° Heel to Port.	Ship Upright.	10° [illegible] b
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
N.	19 0 E.	1 45 E.	10 10 W.	12 15 E.	1 0 E.	7 0 W.	12 30 E.	1 15 E.	9 0 W.	25 0 E.	10 45 E.	2
N. by E.	17 25 E.	1 0 E.	11 0 W.	11 30 E.	0 15 E.	7 45 W.	14 40 E.	3 0 E.	6 30 W.	26 40 E.	13 30 E.	0
N.N.E.	15 40 E.	0 30 E.	10 50 W.	10 25 E.	0 25 W.	8 0 W.	15 0 E.	3 10 E.	4 15 W.	27 10 E.	14 40 E.	1
N.E. by N.	13 20 E.	0 25 E.	10 0 W.	8 25 E.	1 15 W.	7 40 W.	14 30 E.	4 30 E.	2 40 W.	26 10 E.	14 35 E.	4
N.E.	11 20 E.	0 30 E.	8 15 W.	6 25 E.	2 0 W.	7 0 W.	12 45 E.	4 20 E.	1 50 W.	23 10 E.	13 20 E.	5
N.E. by E.	9 20 E.	1 0 E.	5 35 W.	4 45 E.	2 40 W.	6 0 W.	10 0 E.	3 45 E.	1 20 W.	19 40 E.	11 35 E.	6
E.N.E.	7 10 E.	1 15 E.	2 35 W.	3 15 E.	2 40 W.	4 30 W.	6 50 E.	2 15 E.	1 20 W.	15 20 E.	9 10 E.	5
E. by N.	5 0 E.	1 50 E.	0 10 E.	1 55 E.	2 5 W.	2 15 W.	3 35 E.	0 35 E.	1 30 W.	10 30 E.	6 15 E.	5
E.	2 40 E.	2 15 E.	2 15 E.	0 45 E.	0 50 W.	0 20 E.	0 0	1 15 W.	2 0 W.	5 30 E.	3 0 E.	4
E. by S.	0 50 E.	2 35 E.	4 15 E.	0 5 E.	0 30 E.	3 0 E.	4 0 W.	3 25 W.	2 40 W.	0 15 E.	0 30 W.	2
E.S.E.	0 50 W.	2 50 E.	5 40 E.	0 0	1 40 E.	4 25 E.	7 20 W.	5 15 W.	3 0 W.	5 30 W.	4 0 W.	0
S.E. by E.	2 10 W.	2 55 E.	7 0 E.	0 0	2 5 E.	5 5 E.	9 45 W.	6 20 W.	3 0 W.	9 35 W.	7 0 W.	1
S.E.	2 55 W.	3 0 E.	7 55 E.	0 20 W.	1 50 E.	4 50 E.	10 45 W.	6 40 W.	2 35 W.	13 0 W.	9 30 W.	2
S.E. by S.	3 5 W.	2 45 E.	8 20 E.	1 5 W.	1 0 E.	4 15 E.	10 30 W.	6 15 W.	1 40 W.	15 25 W.	11 0 W.	2
S.S.E.	3 30 W.	2 20 E.	8 40 E.	2 10 W.	0 5 E.	3 25 E.	9 30 W.	5 0 W.	0 10 W.	17 0 W.	11 30 W.	3
S. by E.	3 40 W.	1 50 E.	8 45 E.	3 30 W.	0 50 W.	2 20 E.	8 15 W.	3 25 W.	1 40 E.	17 15 W.	11 30 W.	3
S.	4 20 W.	1 10 E.	8 35 E.	4 40 W.	1 55 W.	1 15 E.	6 40 W.	1 40 W.	3 25 E.	16 45 W.	10 30 W.	2
S. by W.	5 20 W.	0 25 E.	8 0 E.	5 40 W.	3 0 W.	0 0	4 35 W.	0 5 W.	4 55 E.	15 15 W.	8 40 W.	1
S.S.W.	6 0 W.	0 15 W.	7 30 E.	6 40 W.	4 15 W.	1 20 W.	2 45 W.	1 0 E.	5 40 E.	13 0 W.	6 15 W.	0
S.W. by S.	6 20 W.	1 0 W.	6 35 E.	7 15 W.	5 0 W.	2 40 W.	1 40 W.	1 40 E.	5 40 E.	10 15 W.	4 0 W.	1
S.W.	6 15 W.	1 20 W.	5 35 E.	7 40 W.	5 40 W.	3 45 W.	1 0 W.	1 45 E.	5 0 E.	8 0 W.	2 45 W.	2
S.W. by W.	5 55 W.	1 40 W.	4 15 E.	7 15 W.	5 45 W.	4 25 W.	0 45 W.	1 15 E.	3 30 E.	6 0 W.	2 20 W.	2
W.S.W.	4 50 W.	1 45 W.	3 0 E.	6 0 W.	5 10 W.	4 30 W.	1 0 W.	0 15 E.	1 30 E.	4 45 W.	2 25 W.	1
W. by S.	3 0 W.	1 35 W.	1 0 E.	3 55 W.	3 45 W.	3 50 W.	1 30 W.	1 0 W.	1 0 W.	3 30 W.	2 50 W.	0
W.	0 45 W.	1 10 W.	0 45 W.	0 40 W.	1 25 W.	2 40 W.	1 25 W.	2 0 W.	3 15 W.	2 5 W.	3 10 W.	3
W. by N.	1 20 E.	0 40 W.	2 40 W.	4 0 E.	1 10 E.	1 35 W.	1 0 W.	2 45 W.	5 20 W.	0 35 W.	3 15 W.	5
W.N.W.	4 35 E.	0 0	4 30 W.	7 35 E.	3 10 E.	1 15 W.	0 10 W.	3 30 W.	7 35 W.	1 35 E.	3 0 W.	6
N.W. by W.	8 10 E.	0 45 E.	5 45 W.	10 0 E.	4 5 E.	1 30 W.	0 45 E.	4 0 W.	9 0 W.	4 15 E.	2 15 W.	7
N.W.	12 45 E.	1 45 E.	7 0 W.	11 25 E.	4 15 E.	2 0 W.	2 15 E.	4 0 W.	10 0 W.	8 0 E.	0 55 W.	8
N.W. by N.	16 0 E.	2 40 E.	7 50 W.	12 15 E.	3 45 E.	3 0 W.	4 15 E.	3 35 W.	10 45 W.	12 40 E.	1 0 E.	7
N.N.W.	18 30 E.	3 0 E.	8 25 W.	12 45 E.	2 55 E.	4 10 W.	7 0 E.	2 40 W.	10 40 W.	17 10 E.	3 30 E.	6
N. by W.	19 30 E.	2 50 E.	9 10 W.	12 45 E.	1 50 E.	5 45 W.	10 0 E.	1 0 W.	9 50 W.	21 30 E.	6 40 E.	4

MAGNETIC CO-EFFICIENTS OBTAINED FROM THE DEVIATIONS BELONGING TO THE SIXTEEN PRINCIPAL POINTS

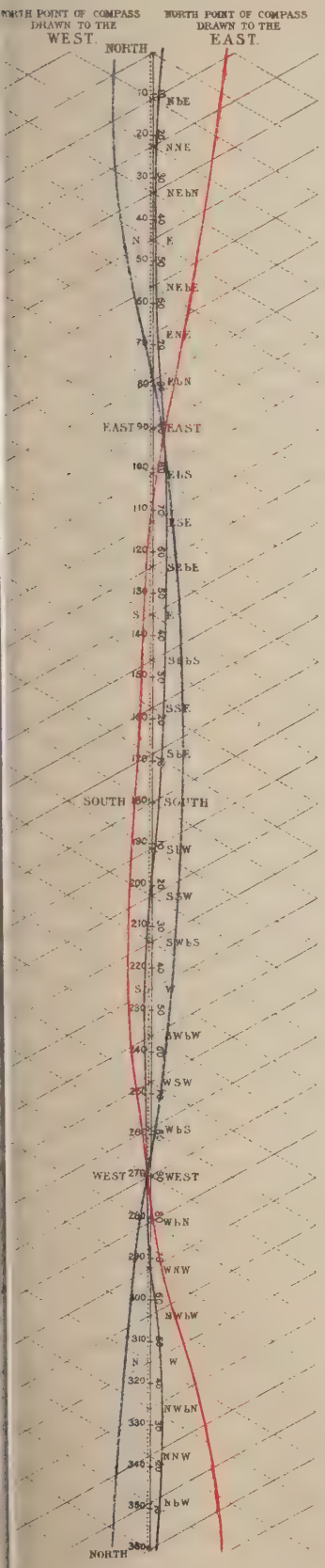
A	+ 3 51	+ 1 0	− 0 21	+ 2 18	− 0 36	− 2 0	+ 1 3	− 1 2	− 2 31	+ 2 34	+ 0 2	−
B	+ 1 21	+ 1 23	+ 0 57	+ 1 23	+ 0 19	+ 1 23	+ 0 23	+ 0 18	+ 0 42	+ 3 51	+ 3 59	+
C	+11 44	+ 0 18	− 9 14	+ 8 55	+ 1 52	− 3 51	+ 9 32	+ 1 26	− 5 32	+19 38	+ 9 28	−
D	− 1 11	− 1 27	− 0 50	− 3 4	− 3 32	− 3 33	+ 5 0	+ 3 59	+ 4 0	+ 4 53	+ 5 19	+
E	+ 3 14	+ 0 32	− 0 48	+ 1 47	− 0 4	− 0 50	+ 2 2	+ 0 29	+ 0 3	+ 1 28	+ 0 8	−

* Compensated for Polar Magnetism only.

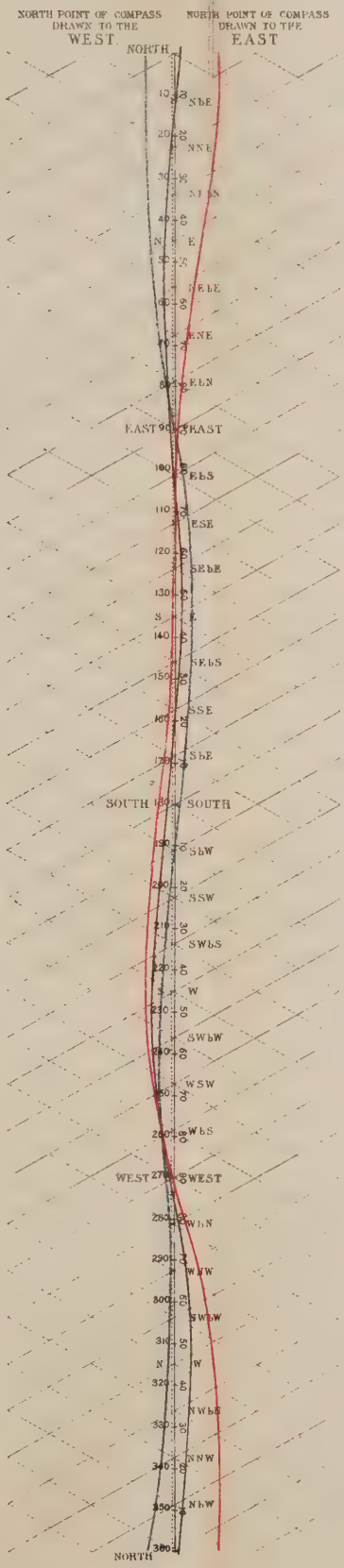
THE BLACK CURVES SHOW THE DEVIATIONS WITH SHIP UPRIGHT; THE RED

THE BLUE CURVES THE DEVIATIONS WITH THE

STEERING COMPASS.



COWLAND'S COMPASS.

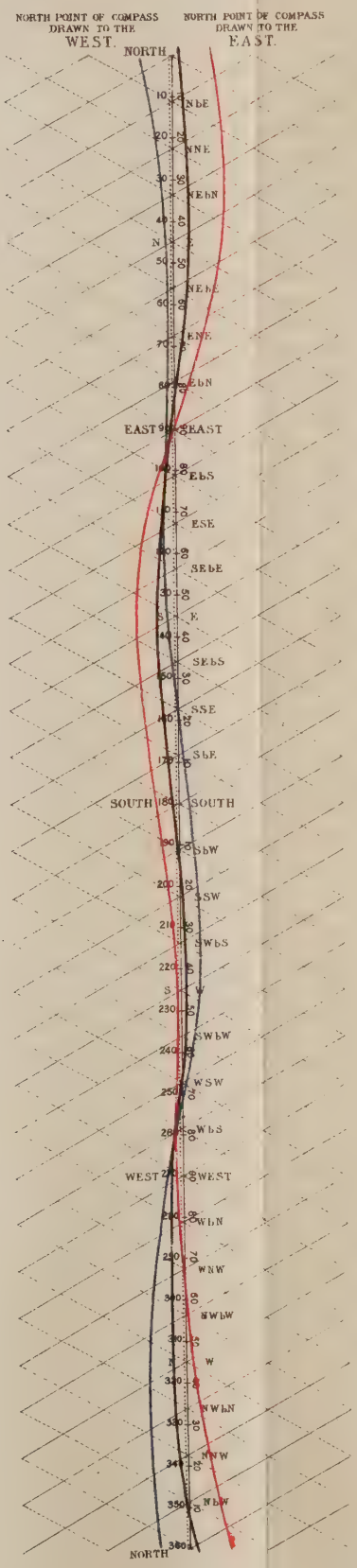


M H A.

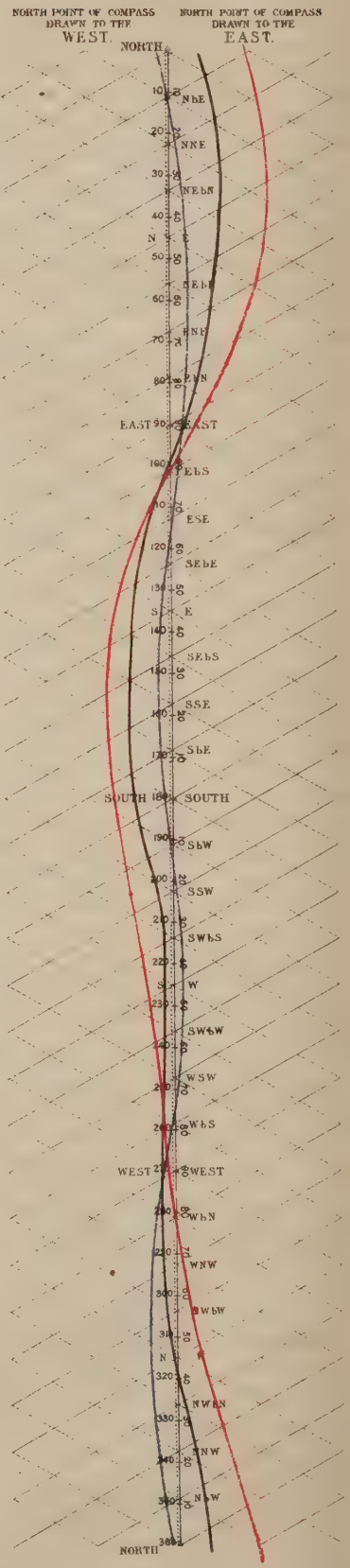
CURVES THE DEVIATIONS WITH THE SHIP HEELING 10° TO PORT;
SHIP HEELING 10° TO STARBOARD.

Plate XI
Appendix E

STANDARD COMPASS.



SPARE COMPASS.

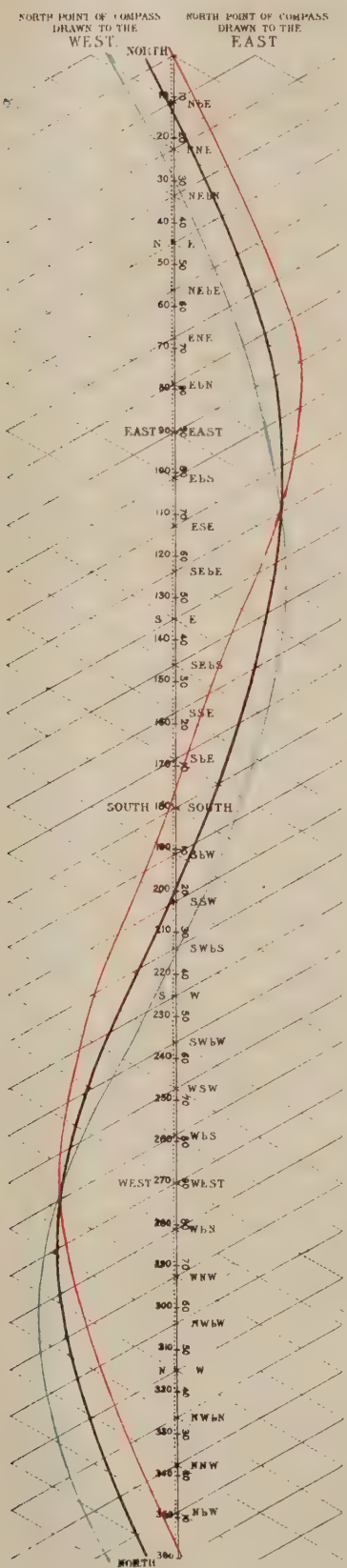


Day & Son Lith.rs to the Queen

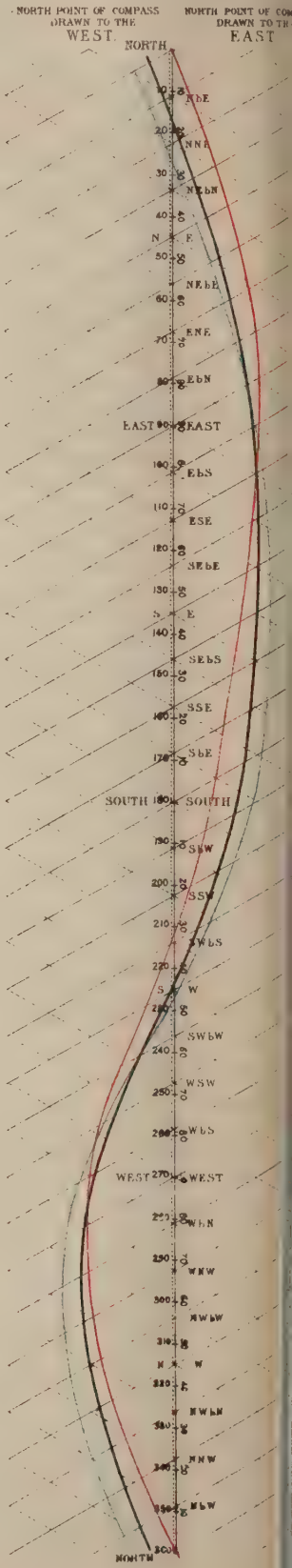
CITANA.

THE BLACK CURVES SHOW THE DEVIATIONS WITH SHIP UPRIGHT: THE RED CURVES THE DEVIATIONS WITH THE SHIP HEELING 10° TO PORT; THE BLUE CURVES THE DEVIATIONS WITH THE SHIP HEELING 10° TO STARBOARD.

FORE COMPASS.



STANDARD COMPASS



Day & Son Lith.rs to th

APPENDIX F.

EXPERIMENTS to ascertain the Effect of HEELING on the COMPASSES of the Iron Ship "GITANA."

This ship is of 1,323 tons register, and was built at Chester with her head about S. 20° W. After launching she was towed to Liverpool, and lay while she was fitting and loading with her head to the North.

The card of the steering compass was 2 feet 10½ inches above the deck, 5 feet 9 inches before the centre of the rudder head, 2 feet 10 inches before the end of the spindle of the wheel, and 4 feet 2 inches before the iron standard of the steering apparatus. The end of the spindle nearest to the compass was 3 feet 3½ inches from the deck.

The standard compass was placed over the fore skidd, 11 feet above the deck, 17 feet before the mizenmast, 39 feet aft of the mainmast, and 18 feet 6 inches aft of the capstans.

The fore-compass was placed over a boat, and stood about 10 feet 3 inches above the deck, 36 feet before the mainmast, and 30 feet aft of the foremast.

The masts and yards were made of iron.

It was expected, from this ship having been built with her head to the southward, that the deviations from heeling of the aftermost compasses would have indicated a strong attraction to the lee-side of the ship, but the only compass which deviated to the low-side was the steering compass, and that only to a small extent when the ship was heeled to port. The standard and fore-compasses deviated to the weather-side, the former to about two-thirds the extent of a similarly placed compass in the "Beann Uamha." The following Table will exhibit the deviation due to heeling when ship's head was at North and at South, correct magnetic, in both ships.

Position of the Compass.	Deviations obtained for Ship's Head North correct Magnetic.					Deviations obtained for Ship's Head South correct Magnetic.				
	Port Heel.	Ship upright.	Starboard Heel.	Change by heeling Ship from 10° to Port to 10° to Starboard.	Average Change in Deviation from each Degree of Heel.	Port Heel.	Ship upright.	Starboard Heel.	Change by heeling Ship from 10° to Port to 10° to Starboard.	Average Change in Deviation from each Degree of Heel.
"GITANA."	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
Steering Compass, compensated	2 30 W.	1 30 W.	2 0 W.	0 30	0 2	5 35 E.	0 15 W.	0 15 W.	5 50	0 18
Standard Compass	0 30 E.	6 0 W.	10 0 W.	10 30	0 32	12 0 E.	19 40 E.	24 20 E.	12 20	0 37
Fore Compass	1 15 E.	6 0 W.	13 30 W.	14 45	0 44	1 20 W.	11 20 E.	21 0 E.	22 20	1 7
"BEANN UAMHA."										
Steering Compass, compensated	18 40 E.	1 55 E.	11 0 W.	29 0	1 27	4 40 W.	1 15 E.	8 40 E.	13 20	0 40
Upper steering Compass, compensated	12 45 E.	1 10 E.	7 30 W.	20 15	1 1	5 10 W.	2 0 W.	1 20 E.	6 30	0 20
Standard Compass, compensated	10 10 E.	1 5 E.	7 10 W.	17 10	0 52	5 30 W.	1 30 W.	3 0 E.	8 30	0 26
Spare Compass	18 40 E.	7 45 E.	2 45 W.	21 25	1 4	14 40 W.	8 50 W.	2 20 W.	12 20	0 37

"GITANA."

DEVIATION TABLES for Ship upright and with a list to Starboard and to Port of 10°, obtained from curves passed through the projection of observations made in the BRUNSWICK DOCK, LIVERPOOL, April 23rd and 24th, 1861.

Ship's Head by (disturbed) Compass.	Steering Compass (Compensated*).			Standard Compass.			Fore Compass.		
	10° Heel to Port.	Ship upright.	10° Heel to Starboard.	10° Heel to Port.	Ship upright.	10° Heel to Starboard.	10° Heel to Port.	Ship. upright.	10° Heel to Starboard.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N.	2 40 W.	1 40 W.	2 15 W.	0 40 E.	9 0 W.	18 0 W.	1 50 E.	11 15 W.	27 0 W.
N. by E.	2 10 W.	1 15 W.	1 30 W.	6 30 E.	3 0 W.	9 0 W.	10 10 E.	2 15 W.	15 50 W.
N.N.E.	1 45 W.	0 45 W.	0 45 W.	12 30 E.	3 0 E.	2 15 W.	18 30 E.	6 30 E.	6 0 W.
N.E. by N.	1 20 W.	0 0	0 10 W.	17 15 E.	9 0 E.	5 0 E.	26 20 E.	14 15 E.	3 20 E.
N.E.	1 5 W.	0 45 E.	0 40 E.	20 40 E.	13 30 E.	11 0 E.	32 0 E.	21 15 E.	10 50 E.
N.E. by E.	0 50 W.	1 20 E.	1 30 E.	23 15 E.	17 0 E.	16 0 E.	34 40 E.	25 40 E.	17 0 E.
E.N.E.	0 30 W.	2 40 E.	2 0 E.	24 20 E.	19 45 E.	19 10 E.	34 50 E.	28 15 E.	22 20 E.
E. by N.	0 0	1 25 E.	2 30 E.	24 30 E.	21 50 E.	22 0 E.	33 20 E.	29 25 E.	26 0 E.
E.	0 20 E.	0 30 E.	2 45 E.	23 20 E.	23 0 E.	24 15 E.	30 30 E.	29 15 E.	28 45 E.
E. by S.	1 15 E.	0 30 W.	2 10 E.	22 20 E.	23 40 E.	26 0 E.	27 10 E.	28 15 E.	30 20 E.
E.S.E.	2 0 E.	1 30 W.	0 20 E.	20 45 E.	23 30 E.	26 40 E.	23 15 E.	26 30 E.	30 45 E.
S.E. by E.	2 45 E.	2 10 W.	1 30 W.	19 15 E.	23 0 E.	27 0 E.	19 15 E.	24 10 E.	29 50 E.
S.E.	3 45 E.	2 30 W.	2 45 W.	17 50 E.	22 30 E.	26 40 E.	15 0 E.	21 40 E.	27 40 E.
S.E. by S.	4 30 E.	2 30 W.	2 45 W.	16 0 E.	21 40 E.	25 40 E.	10 50 E.	18 40 E.	24 50 E.
S.S.E.	5 0 E.	1 50 W.	2 0 W.	14 0 E.	20 0 E.	23 45 E.	6 50 E.	15 20 E.	21 45 E.
S. by E.	5 30 E.	1 0 W.	1 15 W.	11 45 E.	18 0 E.	21 30 E.	2 50 E.	11 45 E.	17 50 E.
S.	5 40 E.	0 20 W.	0 20 W.	9 30 E.	15 20 E.	18 30 E.	1 0 W.	7 50 E.	14 10 E.
S. by W.	5 30 E.	0 15 E.	0 30 E.	6 50 E.	12 0 E.	14 40 E.	4 40 W.	3 30 E.	9 40 E.
S.S.W.	4 45 E.	0 50 E.	1 20 E.	3 50 E.	8 20 E.	10 45 E.	8 50 W.	0 55 W.	5 15 E.
S.W. by S.	3 30 E.	1 10 E.	2 10 E.	0 0	4 0 E.	5 45 E.	13 0 W.	5 30 W.	0 25 E.
S.W.	2 10 E.	1 20 E.	2 50 E.	3 50 W.	0 20 W.	0 40 E.	17 0 W.	10 15 W.	4 30 W.
S.W. by W.	0 40 E.	1 10 E.	3 15 E.	8 20 W.	5 15 W.	4 40 W.	21 0 W.	15 10 W.	9 40 W.
W.S.W.	1 0 W.	0 50 E.	3 15 E.	12 50 W.	10 0 W.	10 0 W.	24 0 W.	19 50 W.	15 5 W
W. by S.	2 40 W.	0 20 E.	2 10 E.	16 40 W.	14 30 W.	15 20 W.	27 0 W.	24 10 W.	20 40 W.
W.	3 40 W.	0 10 W.	0 40 E.	19 30 W.	18 30 W.	20 20 W.	29 20 W.	27 50 W.	25 30 W.
W. by N.	4 0 W.	0 45 W.	1 10 W.	21 45 W.	21 40 W.	24 20 W.	31 0 W.	30 30 W.	29 40 W.
W.N.W.	4 10 W.	1 0 W.	2 45 W.	22 30 W.	24 0 W.	27 40 W.	30 30 W.	32 0 W.	33 15 W.
N.W. by W.	4 10 W.	1 30 W.	3 40 W.	23 10 W.	25 10 W.	29 45 W.	28 10 W.	32 45 W.	35 50 W.
N.W.	4 0 W.	1 50 W.	4 0 W.	21 20 W.	25 15 W.	30 30 W.	24 10 W.	32 10 W.	37 40 W.
N.W. by N.	3 40 W.	2 0 W.	3 45 W.	18 0 W.	23 30 W.	30 0 W.	18 40 W.	29 50 W.	38 10 W.
N.N.W.	3 20 W.	2 0 W.	3 15 W.	13 30 W.	20 20 W.	27 15 W.	12 30 W.	25 15 W.	37 0 W.
N. by W.	3 0 W.	2 0 W.	2 40 W.	7 30 W.	15 30 W.	22 45 W.	5 40 W.	19 15 W.	33 10 W.

MAGNETIC CO-EFFICIENTS.

	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
A	+0 6	−0 25	−0 19	+ 3 22	+ 2 36	+ 1 43	+ 0 58	− 0 11	− 1 4
B	+1 38	+0 4	+0 21	+21 54	+21 6	+22 47	+30 4	+29 10	+27 33
C	−4 12	−0 16	−1 8	− 4 49	−12 2	−16 50	+ 2 26	− 8 47	−18 37
D	+0 21	+1 42	+2 32	+ 5 8	+ 3 57	+ 3 54	+ 5 59	+ 5 18	+ 4 10
E	+1 33	−0 42	−1 21	+ 1 26	+ 0 21	− 0 28	0 0	− 1 15	− 3 51

* The cast iron correctors for Quadrantal deviation were placed with their long axis fore and aft. The deviations for the steering compass must be taken as approximate only.

APPENDIX. G.

VIATION TABLES for Ships belonging to the ROYAL NAVY which have been swung to ascertain the effect of Heeling on their Compasses, as obtained by passing fair Curves through the Projection of the recorded Observations.

Ship's (lead by isturbed) ompass.	S. BLOODHOUND. Swung by Captain E. J. Johnson, R.N. — Standard Compass.			Brig RECRUIT. Swung at Plymouth by Mr. Walker, R.N. — Steering Compass.			S. SHARPSHOOTER. Swung at Portsmouth by Captain J. N. Strange, R.N. — April 25, 1848, Standard Compass.			April 26, 1848, Steering Compass.	
	8° Heel to Port.	Ship upright.	8° Heel to Starboard.	8° Heel to Port.	Ship upright.	8° Heel to Starboard.	Ship Upright Funnel down.	Ship Upright Funnel up.	7° Heel to Starboard.	Ship Upright.	7° Heel to Starboard.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N.	4 45 W.	1 0 W.	0 45 E.	2 45 E.	7 15 E.	13 40 E.	0 0	0 35 E.	1 10 W.	0 0	1 30 E.
[illegible] by E.	1 0 W.	2 45 E.	3 50 E.	6 40 E.	12 30 E.	18 0 E.	2 35 E.	0 25 E.	1 20 W.	0 0	0 30 E.
[illegible]N.E.	2 25 E.	6 20 E.	7 30 E.	10 0 E.	15 50 E.	21 10 E.	4 50 E.	0 10 E.	1 15 W.	0 0	0 10 W.
[illegible]E. by N.	6 0 E.	9 0 E.	9 50 E.	12 30 E.	17 45 E.	22 30 E.	6 30 E.	0 5 W.	1 15 W.	0 20 W.	1 10 W.
N.E.	8 30 E.	11 15 E.	11 55 E.	14 20 E.	18 45 E.	22 50 E.	7 20 E.	0 40 W.	1 45 W.	1 5 W.	2 0 W.
[illegible]E. by E.	10 15 E.	12 15 E.	13 0 E.	15 20 E.	18 45 E.	21 50 E.	7 0 E.	1 40 W.	2 35 W.	2 15 W.	2 45 W.
[illegible]E.N.E.	11 5 E.	12 40 E.	13 0 E.	15 40 E.	17 30 E.	20 0 E.	6 15 E.	3 20 W.	3 45 W.	4 15 W.	3 50 W.
[illegible] by N.	11 35 E.	12 25 E.	12 30 E.	15 20 E.	15 45 E.	17 0 E.	5 10 E.	5 30 W.	5 25 W.	6 45 W.	6 0 W.
E.	11 25 E.	11 40 E.	11 15 E.	14 20 E.	13 30 E.	13 40 E.	3 35 E.	7 35 W.	7 20 W.	8 50 W.	8 5 W.
[illegible] by S.	10 45 E.	10 30 E.	10 0 E.	13 10 E.	10 50 E.	9 50 E.	1 50 E.	9 10 W.	8 40 W.	10 0 W.	10 40 W.
[illegible]E.S.E.	10 10 E.	9 20 E.	8 10 E.	11 45 E.	8 10 E.	5 50 E.	0 5 E.	10 15 W.	9 40 W.	11 0 W.	12 0 W.
[illegible] by E.	9 20 E.	8 15 E.	6 25 E.	9 50 E.	5 30 E.	1 40 E.	1 30 W.	10 45 W.	10 0 W.	11 15 W.	12 45 W.
S.E.	8 40 E.	7 10 E.	4 50 E.	8 0 E.	2 50 E.	2 0 W.	2 30 W.	10 40 W.	9 50 W.	10 40 W.	12 10 W.
[illegible] by S.	7 50 E.	6 5 E.	2 50 E.	6 10 E.	0 10 E.	5 50 W.	2 40 W.	9 40 W.	8 40 W.	9 40 W.	10 40 W.
[illegible]S.E.	7 0 E.	5 0 E.	1 10 E.	4 0 E.	2 30 W.	9 10 W.	1 50 W.	7 30 W.	6 0 W.	7 10 W.	7 20 W.
[illegible] by E.	6 5 E.	3 40 E.	0 40 W.	2 10 E.	5 0 W.	12 0 W.	0 45 W.	3 50 W.	3 10 W.	3 0 W.	3 20 W.
S.	4 50 E.	2 40 E.	2 0 W.	0 0	7 0 W.	14 20 W.	0 45 E.	0 10 W.	0 0	2 0 E.	0 15 E.
[illegible] by W.	3 10 E.	1 20 E.	3 20 W.	1 45 W.	8 15 W.	16 0 W.	2 0 E.	3 25 E.	3 25 E.	6 0 E.	5 15 E.
[illegible]S.W.	1 50 E.	0 25 W.	4 35 W.	3 30 W.	9 0 W.	17 10 W.	3 0 E.	6 45 E.	6 30 E.	9 45 E.	10 10 E.
[illegible]V. by S.	0 15 E.	1 55 W.	5 40 W.	5 0 W.	9 30 W.	17 50 W.	3 15 E.	8 50 E.	8 45 E.	12 30 E.	13 40 E.
S.W.	1 45 W.	3 50 W.	7 0 W.	6 20 W.	9 40 W.	18 10 W.	2 50 E.	10 0 E.	10 0 E.	13 50 E.	15 40 E.
[illegible]. by W.	4 20 W.	6 0 W.	8 0 W.	7 30 W.	9 45 W.	17 50 W.	1 25 E.	10 15 E.	10 25 E.	14 0 E.	16 10 E.
[illegible]V.S.W.	6 50 W.	8 0 W.	9 0 W.	8 30 W.	10 30 W.	16 45 W.	0 10 W.	9 45 E.	10 0 E.	13 10 E.	15 25 E.
[illegible]. by S.	9 10 W.	9 50 W.	10 [illegible]5 W.	9 10 W.	10 40 W.	15 0 W.	2 10 W.	8 30 E.	9 0 E.	11 50 E.	14 20 E.
W.	11 30 W.	11 45 W.	11 20 W.	9 30 W.	10 20 W.	12 45 W.	4 0 W.	6 50 E.	7 50 E.	9 50 E.	12 20 E.
[illegible]. by N.	13 5 W.	12 45 W.	11 45 W.	10 0 W.	9 20 W.	10 10 W.	5 50 W.	5 0 E.	6 10 E.	7 40 E.	10 0 E.
[illegible]N.W.	14 45 W.	13 20 W.	12 0 W.	9 50 W.	8 0 W.	8 10 W.	7 20 W.	3 20 E.	4 20 E.	5 40 E.	8 0 E.
[illegible]. by W.	15 40 W.	13 30 W.	11 45 W.	8 40 W.	6 40 W.	5 20 W.	8 10 W.	1 45 E.	2 55 E.	3 45 E.	6 35 E.
[illegible]N.W.	15 35 W.	13 0 W.	11 10 W.	6 50 W.	4 30 W.	2 30 W.	8 35 W.	0 45 E.	1 30 E.	2 30 E.	5 30 E.
[illegible]. by N.	14 5 W.	11 15 W.	9 20 W.	4 30 W.	2 0 W.	0 40 E.	7 55 W.	0 0	0 20 E.	1 30 E.	4 30 E.
[illegible]N.W.	11 50 W.	8 20 W.	6 30 W.	2 0 W.	0 30 E.	4 15 E.	6 35 W.	0 5 E.	0 10 W.	0 50 E.	3 40 E.
[illegible] by W.	8 30 W.	4 45 W.	3 0 W.	0 10 W.	3 45 E.	8 15 E.	3 45 W.	0 20 E.	0 45 W.	0 20 E.	2 30 E.

MAGNETIC CO-EFFICIENTS.

	′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
A	− 0 3	+ 0 24	− 0 19	+ 2 9	+ 1 28	+ 0 2	− 0 10	− 0 8	− 0 3	+ 1 1	+ 1 41
B	+11 42	+12 2	+11 45	+12 20	+12 4	+13 53	+ 3 51	− 7 29	− 7 47	− 9 51	−11 13
C	− 4 55	− 1 41	+ 1 10	+ 1 49	+ 7 17	+14 2	− 0 36	+ 0 17	− 0 23	− 0 45	− 0 2
D	+ 3 19	+ 3 15	+ 2 49	+1 44	+ 3 0	+ 2 25	+ 5 16	+ 4 52	+ 4 8	+ 5 28	+ 5 8
E	0 0	+ 0 22	− 0 27	− 0 15	− 0 25	− 0 24	+ 0 11	+ 0 9	− 0 23	− 0 5	− 0 26

APPENDIX H.

PARTICULARS of some of the cases in which vertical iron bars have been introduced to compensate the effect of the changing magnetism of the stern post, rudder head, rudder casing, &c. on the steering compasses of iron ships.

1. "ACCRINGTON." As a vertical bar immediately before the steering compass would have interfered with the fitting of the companion, two bars were introduced, one on each side of the companion, but before the compass. No fore-and-aft magnet was employed. In reply to an inquiry how this answered during the ship's first voyage to Calcutta and back, the managing owner wrote as follows under date, April 11, 1861:—"In reply to your inquiry, I beg to inform you that the steering compass "of the 'Accrington' is reported by the master to be as accurate as that of a wooden ship could be "You will no doubt recollect she had two vertical bars and cylinders."

2. "ADVANCE." A vertical bar was introduced in 1857 to compensate about half of the observed attraction towards the stern at Liverpool. This being found insufficient, another bar was fixed nearer the compass, in 1860, so as to over compensate the attraction in Liverpool. The trial of this on a voyage to Ceylon and back shows that a rather stouter piece of iron, or the same bar placed a little near, would practically compensate the changing magnetism at the stern of this ship. See log of this ship.

3. "APHRODITA." A long vertical bar was introduced immediately before the steering compass, so as to compensate all the deviation towards the stern observed at Liverpool, except about 7°, which was corrected by a magnet. This has acted well during two voyages to Calcutta and back. See logs at pages 110, 111.

4. "ARAXES," S.S. The vertical bar in this steamer was firmly connected with the ironwork near the bottom of the ship, so as to partake of any vibration which might be caused by the screw. It is reported to have acted very satisfactorily during several voyages to and from Alexandria. About twelve months after it was introduced the ship underwent a thorough refit in graving dock with her head N.N.E. On trying her afterwards with her head east and west, the compensation was still found perfect.

5. "ARCADIA," S.S. A short stout bar was introduced, as a long bar would have interfered with the cabin fittings. Reported to have acted very satisfactorily during several voyages to Alexandria.

6. "BŒOTIA," S.S. A short bar, 4 feet long, 3 inches in diameter, fixed inside the skylight in front of the compass in 1857, and is reported to have acted well ever since.

7. "CRINOLINE." Short bar introduced in spring of 1857. No report; but the bar has been seen in place again, after a temporary removal.

8. "EDMOND PRESTON." This ship's steering compass had no fore-and-aft compass error in Liverpool, but was reported to have had very large deviations in the Southern hemisphere on her first voyage round the Horn. Before her second voyage a short vertical iron bar was fixed so as to produce a deviation of the needle to the bow of about 20°. This was compensated by a permanent magnet. The captain on his return reported that in high South latitude the error with ship's head East or West was not more than in the Northern hemisphere, but that there was an error of about four points with ship's head N.E. or N.W. in North latitude towards the end of his voyage. He added, that he had not allowed the compass card to be touched from the time he sailed until he again returned to Liverpool.

9. "LACONIA," S.S. Short vertical bar introduced. Under compensated, but said to be improved.

10. "NEMESIS," S.S. A vertical bar carried nearly to the bottom of the vessel, and there firmly secured. Slightly under compensated. A refit in graving dock did not disturb the compensation.

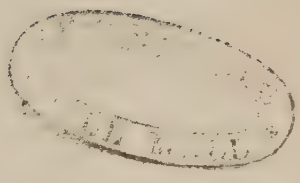
11. "ORONTES," S.S. A short bar introduced, and reported to work well.

12. "SCAMANDER," S.S. Same fitting and effect as in the "ARAXES," S.S.

13. "SLIEVE DONARD." A vertical bar secured to a bulk head, reaching to the bottom of the ship, which compensated the whole of the attraction towards the stern, except about 10°, which was corrected a magnet. The first voyage to Bombay showed that the bar was far too weak. On the ship's return to Liverpool the compass was moved nearer to the bar, so as to make it show an attraction to the bow of about 26°, which was corrected by a magnet. The captain reported on his return from a second voyage to Calcutta that his compass never varied more than half a point from the deviations observed in dock before she sailed. See logs of this ship.

14. "THESSALIA," S.S. Same as "LACONIA."

Similar bars have been introduced in several other ships; also in some steamers, to partially compensate bridge compasses which have been fixed near the funnel or other masses of vertical iron.



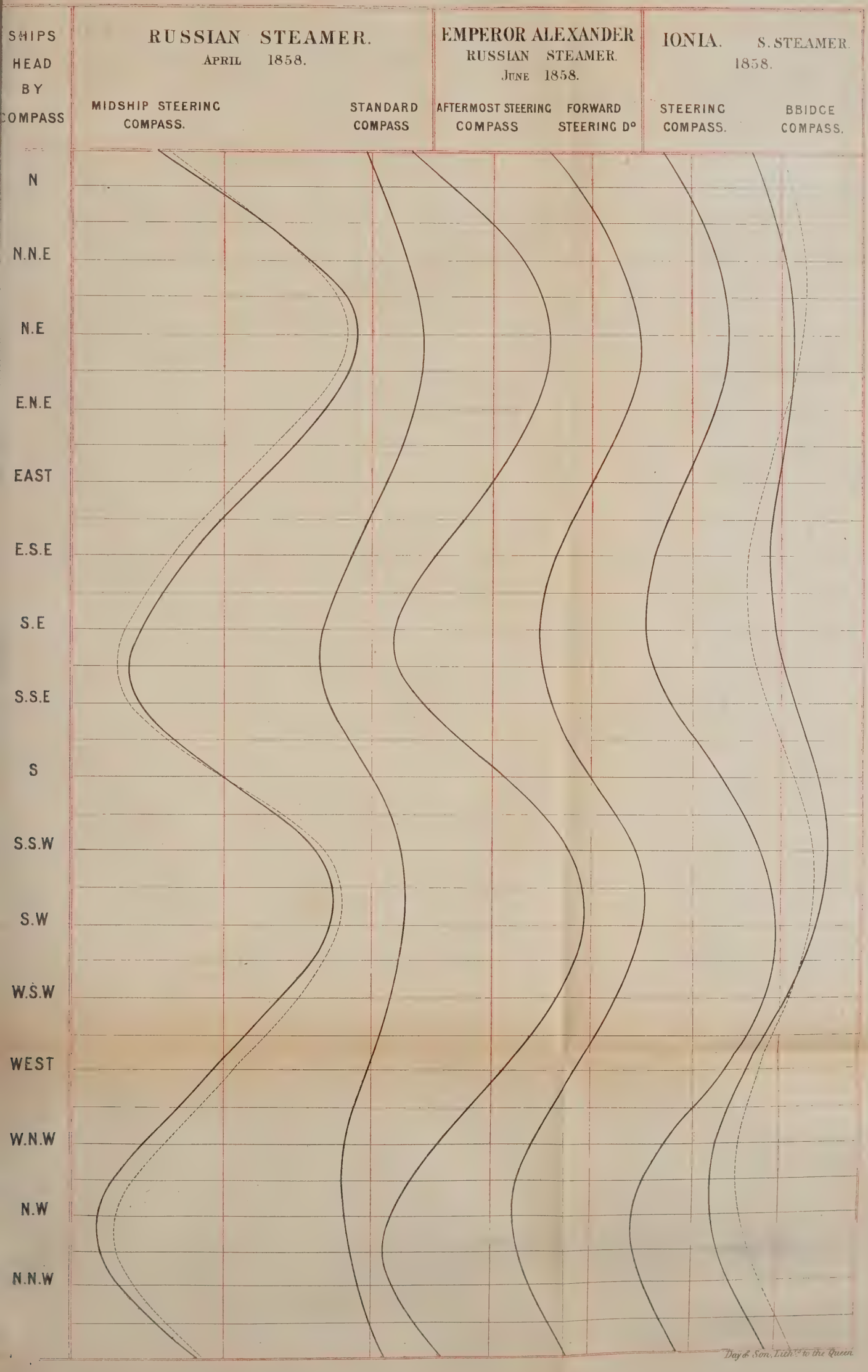
CURVES OF COMPASS DEVIATIONS OBSERVED WHEN THE SHIPS POLAR MAGNETISM HAS BEEN MORE OR LESS COMPLETELY COMPENSATED.

SHIPS HEAD BY COMPASS	CAIRO. SCREW STEAMER Dec; 1859. STANDARD COMPASS.	"IMPERADOR" SCREW STEAMER Jan: 1859. FORE COMPASS.	STEAMER STEERING COMPASS.	RUSSIAN STEAMER Aug; 1859. MIDSHIP STEERING COMPASS.	URARA. STEAMER 1859. BRIDGE COMPASS.	INCA. STEAMER April 1860. MIDSHIP STEERING COMPASS.	MEAN OF THE TWELVE PRECEDING CURVES
N							
N.N.E							
N.E							
E.N.E							
EAST							
E.S.E							
S.E							
S.S.E							
S							
S.S.W							
S.W							
W.S.W							
WEST							
W.N.W							
N.W							
N.N.W							

Dan'l Nunn Lieut. R.N. del.

10° 5° 0 5 10 15 degrees. Scale of degrees for deviation.

CURVES OF COMPASS DEVIATIONS OBSERVED WHEN THE SHIPS POLAR MAGNETISM HAS BEEN MORE OR LESS COMPLETELY COMPENSATED.



APPENDIX K.

PERIMENTS to ascertain the Effect of CAST-IRON CYLINDERS as CORRECTORS for QUADRANTAL DEVIATION with THREE KINDS of COMPASS CARDS, with some EXAMPLES of QUADRANTAL DEVIATION.

The cylinders were placed in the horizontal position, one on each side of the compass and athwartps, this being the usual mode of applying them, as they thus become to some extent correctors) for the deviation which arises from heeling. In some ships it may be advisable to apply them each side of the compass, but in the fore-and-aft direction, and in other ships they may have a ter effect if placed vertically instead of horizontally. If the centre of the cylinders be placed in same horizontal plane as the needles of the card, it does not much matter, as respects quadrantal iation, which of the three positions named may be adopted.*

1. Compass card with a single needle 6·3 inches long, such as is used in the Board of Trade azimuth compasses.
2. Compass card with two parallel needles each 6·4 inches long and 2·93 inches apart.
3. Admiralty compass card with four compound and parallel needles, the two middle needles each 7·13 inches long and 2 inches apart, the two outside needles each 5·25 inches long and 1·25 inches from the adjacent needle.

Ship's Head by Compass.	Deviations of the Compass Card with a single Needle with the 9-inch Cylinders. Distance of nearest End of the Cylinders from the Centre of the Card in Inches.						Deviations of the Compass Card with Two Needles with the 12-inch Cylinders. Distance of nearest End of the Cylinders from the Centre of the Card in Inches.					
	6.	7.	8.	9.	10.	11.	7.	8.	9.	10.	11.	12.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N. and S.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
N. by E. „ S. by W.	− 2 11	−1 32	−1 13	−0 56	−0 44	−0 31	− 3 44	−2 30	−1 39	−1 10	−0 51	−0 37
N.N.E. „ S.S.W.	− 4 45	−3 18	−2 26	−1 45	−1 15	−0 47	− 8 17	−5 20	−3 28	−2 18	−1 37	−1 9
E. by N. „ S.W. by S.	− 8 0	−5 15	−3 36	−2 23	−1 35	−0 56	−11 23	−7 38	−5 0	−3 18	−2 10	−1 28
N.E. „ S.W.	−11 56	−7 18	−4 39	−2 40	−1 45	−1 2	−12 25	−8 30	−5 50	−3 47	−2 23	−1 35
E. by E. „ S.W. by W.	−15 49	−8 48	−5 18	−3 6	−1 47	−1 5	−11 54	−8 11	−5 30	−3 33	−2 17	−1 31
E.N.E. „ W.S.W.	−16 45	−8 31	−5 7	−2 50	−1 40	−1 0	− 9 14	−5 57	−3 53	−2 38	−1 51	−1 17
E. by N. „ W. by S.	−12 30	−5 32	−3 3	−1 51	−1 10	−0 43	− 3 26	−2 21	−1 42	−1 11	−0 54	−0 41
E. „ W.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
E. by S. „ W. by N.	12 30	5 32	3 3	1 51	1 10	0 43	3 26	2 21	1 42	1 11	0 54	0 41
E.S.E. „ W.N.W.	16 45	8 31	5 7	2 50	1 40	1 0	9 14	5 57	3 53	2 38	1 51	1 17
E. by E. „ N.W. by W.	15 49	8 48	5 18	3 6	1 47	1 5	11 54	8 11	5 30	3 33	2 17	1 31
S.E. „ N.W.	11 56	7 18	4 39	2 40	1 45	1 2	12 25	8 30	5 50	3 47	2 23	1 35
E. by S. „ N.W. by N.	8 0	5 15	3 36	2 23	1 35	0 56	11 23	7 38	5 0	3 18	2 10	1 28
S.S.E. „ N.N.W.	4 45	3 18	2 26	1 45	1 15	0 47	8 17	5 20	3 28	2 18	1 37	1 9
S. by E. „ N. by W.	2 11	1 32	1 13	0 56	0 44	0 31	3 44	2 30	1 39	1 10	0 51	0 37

Ship's Head by Compass.	Deviations of the Admiralty Compass Card with the 12-inch Cylinders at the following Distances.						Deviations of the Admiralty Compass Card with the 9-inch Cylinders at the following Distances.					
	7 Inches.	8 Inches.	9 Inches.	10 Inches.	11 Inches.	12 Inches.	7 Inches.	8 Inches.	9 Inches.	10 Inches.	11 Inches.	12 Inches.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N. and S.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
. by E. „ S. by W.	− 6 0	−3 50	−2 40	−1 52	−1 17	−0 58	− 5 39	−3 37	−2 14	−1 21	−0 55	−0 37
N.N.E. „ S.S.W.	−10 32	−6 42	−4 39	−3 27	−2 30	−1 52	− 9 5	−5 36	−3 36	−2 27	−1 35	−1 9
. by N. „ S.W. by S.	−12 50	−8 27	−5 57	−4 17	−3 4	−2 15	−10 25	−6 26	−4 7	−2 50	−1 57	−1 24
N.E. „ S.W.	−12 37	−8 27	−6 0	−4 19	−3 10	−2 20	−10 10	−6 17	−4 8	−2 52	−1 58	−1 24
. by E. „ S.W. by W.	−10 15	−7 22	−5 18	−3 52	−2 55	−2 9	− 8 42	−5 30	−3 41	−1 36	−1 48	−1 16
E.N.E. „ W.S.W.	− 8 2	−5 29	−3 58	−2 55	−2 13	−1 40	− 6 35	−4 14	−2 48	−2 0	−1 24	−1 0
. by N. „ W. by S.	− 4 29	−3 1	−2 6	−1 35	−1 13	−0 57	− 3 30	−2 18	−1 30	−1 8	−0 50	−0 36
E. „ W.	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
. by S. „ W. by N.	4 29	3 1	2 6	1 35	1 13	0 57	3 30	2 18	1 30	1 8	0 50	0 36
E.S.E. „ W.N.W.	8 2	5 29	3 58	2 55	2 13	1 40	6 35	4 14	2 48	2 0	1 24	1 0
. by E. „ N.W. by W.	10 15	7 22	5 18	3 52	2 55	2 9	8 42	5 30	3 41	1 36	1 48	1 16
S.E. „ N.W.	12 37	8 27	6 0	4 19	3 10	2 20	10 10	6 17	4 8	2 52	1 58	1 24
. by S. „ N.W. by N.	12 50	8 27	5 57	4 17	3 4	2 15	10 25	6 26	4 7	2 50	1 57	1 24
S.S.E. „ N.N.W.	10 32	6 42	4 39	3 27	2 30	1 52	9 5	5 36	3 36	2 27	1 35	1 9
. by E. „ N. by W.	6 0	3 50	2 40	1 52	1 17	0 58	5 39	3 37	2 14	1 21	0 55	0 37

Since this was in type a joint paper has been contributed to the Royal Society by Mr. Archibald Smith, M.A., and Mr. F. J. ns, R.N., showing that the "octantal" inequality illustrated in these tables disappears when a double needle card is employed hich the parallel needles (their similar effective poles) are sixty degrees apart from each other. The experiments recorded e show that a corrector when acting on a single needle card would under-compensate a true quadrantal deviation to which the was subject in the first, fourth, fifth, and eighth octant, and over-compensate it in the remaining octants; and that this over under compensation in the same quadrant rapidly increases as the corrector is brought nearer to the card, The corrector has nilar effect on a double needle card when the parallel needles are placed near to each other, but when they are placed beyond rtain distance apart on the card it is found that a contrary result is exhibited; the regular quadrantal deviation is over-comated in the first, fourth, fifth, and eighth octants, and under-compensated in the others. It will be inferred from this that there me distance for the needles at which there would be neither over nor under compensation. Mr. Smith, it is understood, onstrates that this particular distance is found when the similar effective poles of the needles are placed sixty degrees apart n each other, measuring the angle from the centre of the card. Mr. Evans, it is understood, also shows by experiment that the miralty standard compass card with four parallel needles is free from the octantal error here alluded to. The double needle card w almost universally used in the merchant service. Nautical instrument makers and compass adjusters will see the importance ttending to this most opportune and interesting discovery. The paper in question will, it is hoped, be published without delay.

On the next page is given a dozen examples of quadrantal deviations which have been observed on shipboard after the ship's polar magnetism has been more or less completely compensated by magnets. Some of them have been selected as examples of the large amount of induced magnetism which is sometimes observed. In the first example the compass was placed about three feet above a raised platform or bridge, about midship between the wheels of a paddle steamer, and about midway between two funnels situated on the fore-and-aft middle line of the ship, and estimated at more than 30 feet apart. No attempt at great accuracy has been made. The tables are merely transcripts from the cards of deviation supplied to the several vessels.

In each table the two cardinal points on which the deviations are smallest will indicate the point on which the ship's head was placed when the compensating magnets were applied. It will be observed that the ship's polar magnetism is either over-compensated or under-compensated by the amount of the index error added to the small quadrantal deviation which arises from oblique horizontal iron.

COMPASS DEVIATIONS observed when the Polar Deviations have been more or less completely compensated by Magnets.

Ship's Head by Compass.	Russian Steamer. April 1858.		"Emperor Alexander" Steamer. June 1858.		"Ionia" Steamer. 1858.		"Cairo" Steamer. Dec. 1858.	"Imperator" Steamer, Jan. 1859.	Steamer.	Russian Steamer, Aug. 1859.	"Urara" Steamer, 1859.	"Inca" Steamer, Apr. 1860.	Mean of the Twelve Tables.
	Midship Steering Compass.	Standard Compass.	Aftermost Steering Compass.	Forward Steering Compass.	Steering Compass.	Bridge Compass.	Standard Compass.	Fore Compass.	Steering Compass.	Midship Steering Compass.	Bridge Compass.	Midship Steering Compass.*	
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
N.	− 2 0	+1 0	− 5 20	−2 0	− 1 0	−1 30	+0 30	0 0	+ 5 30	+ 3 10	0 0	−1 0	−0 1
N.N.E.	+ 4 40	+3 0	+ 0 40	+1 0	+ 1 0	−1 0	+3 0	+1 30	+ 8 15	+ 7 15	+2 20	+1 0	+2 4
	+10 40	+4 20	+ 4 0	+3 15	+ 3 0	0 0	+5 0	+2 15	+10 0	+10 15	+4 40	+2 20	+4 5
	+15 0	+5 45	+ 6 15	+5 0	+ 4 0	+0 30	+6 30	+2 30	+11 15	+11 30	+6 50	+3 30	+6 3
N.E.	+16 10	+6 20	+ 7 0	+6 0	+ 4 30	+1 0	+6 45	+2 30	+10 50	+11 15	+8 20	+4 20	+7
	+15 0	+6 15	+ 6 10	+5 40	+ 4 0	+1 0	+6 15	+2 0	+ 9 20	+10 15	+8 20	+4 10	+6 2
E.N.E.	+12 15	+5 15	+ 5 0	+4 20	+ 3 0	+0 30	+4 50	+1 30	+ 7 20	+ 8 0	+6 30	+3 15	+5
	+ 8 30	+3 50	+ 2 50	+2 10	+ 1 30	0 0	+2 50	+1 0	+ 4 50	+ 5 15	+2 30	+1 40	+3
East.	+ 4 0	+1 50	0 0	0 0	− 1 0	−0 30	+1 10	0 0	+ 1 50	+ 1 45	−2 0	+0 40	+0 3
	0 0	0 0	− 3 40	−2 15	− 3 0	−1 0	−0 30	−1 30	− 1 0	− 2 0	−6 0	−1 40	−1 5
E.S.E.	− 4 10	−2 20	− 7 15	−4 15	− 4 30	−1 30	−2 30	−2 30	− 3 50	− 5 15	−8 0	−3 0	−4
	− 7 0	−4 30	−10 10	−5 30	− 5 0	−1 30	−4 15	−3 0	− 5 50	− 8 0	−8 0	−3 40	−5 3
S.E.	−10 0	−5 45	−12 0	−6 0	− 5 30	−1 0	−5 15	−3 15	− 7 25	−10 0	−7 0	−3 10	−6 2
	−11 40	−6 0	−12 0	−5 50	− 5 0	0 0	−5 30	−3 0	− 7 50	−10 20	−5 15	−1 40	−6 1
S.S.E.	−10 30	−5 30	− 8 0	−5 0	− 3 0	+1 0	−4 30	−2 30	− 7 20	− 9 10	−3 0	+1 0	−4 4
	− 6 40	−3 0	− 5 0	−3 30	0 0	+2 30	−2 0	−1 0	− 6 0	− 6 15	−1 0	+3 50	−2 2
South.	− 0 20	−0 15	+ 0 40	−0 20	+ 3 0	+4 0	+1 0	+1 15	− 3 0	− 2 45	+1 0	+6 30	+0 4
	+ 6 0	+2 10	+ 5 30	+3 0	+ 5 0	+5 0	+4 20	+4 0	− 0 15	+ 1 0	+3 0	+8 30	+3 5
S.S.W.	+10 40	+3 30	+ 8 45	+5 40	+ 7 0	+5 0	+6 50	+5 0	+ 1 50	+ 4 15	+5 0	+9 20	+6
	+12 40	+4 0	+10 25	+6 40	+ 9 0	+4 30	+7 30	+5 30	+ 3 20	+ 6 10	+6 20	+9 20	+7
S.W.	+13 0	+4 0	+11 0	+6 30	+10 0	+4 0	+7 20	+6 0	+ 3 45	+ 6 15	+7 30	+8 20	+7 1
	+11 0	+3 10	+10 0	+5 40	+10 0	+3 0	+5 30	+5 0	+ 3 25	+ 5 15	+7 30	+6 20	+6 1
W.S.W.	+ 8 0	+2 15	+ 8 10	+3 50	+ 9 30	+1 0	+3 30	+3 30	+ 2 15	+ 3 30	+6 15	+4 0	+4 3
	+ 4 0	+1 10	+ 5 30	+1 45	+ 8 0	−2 0	+1 0	+0 30	+ 0 50	+ 1 45	+4 0	+1 40	+2 2
West.	0 0	0 0	+ 1 50	−1 10	+ 5 0	−4 30	−1 20	−2 30	− 0 10	− 0 15	+1 0	−0 45	−0 1
	− 4 15	−1 20	− 1 50	−3 30	+ 1 30	−6 30	−3 15	−4 30	− 0 45	− 2 15	−1 30	−3 15	−2 3
W.N.W.	− 8 40	−2 45	− 5 30	−5 50	− 2 0	−8 0	−4 45	−6 15	− 1 0	− 4 0	−4 0	−5 10	−4 5
	−12 0	−3 20	− 8 40	−7 30	− 4 30	−9 0	−5 30	−7 15	− 1 15	− 5 45	−5 40	−6 45	−6 2
N.W.	−14 20	−3 30	−11 30	−8 15	− 7 0	−9 0	−5 45	−7 30	− 1 0	− 6 30	−6 0	−7 30	−7 1
	−15 0	−2 45	−12 45	−8 30	− 6 15	−8 0	−5 15	−7 0	− 0 20	− 6 10	−5 30	−7 10	−7
N.N.W.	−12 50	−1 30	−13 0	−7 30	− 5 30	−6 30	−3 45	−5 30	+ 0 50	− 4 0	−4 0	−6 20	−5 5
	− 8 15	0 0	−10 30	−5 0	− 3 30	−4 0	−2 0	−3 0	+ 3 0	− 0 30	−2 15	−3 50	−3 1

In the preceding examples† the inequality of the deviations in the different quadrants which arise from the residual polar magnetism, and from index error, must be carefully distinguished from those which may possibly arise from a greater susceptibility in the horizontal iron to induction in one direction. Thus, in the first example, the deviations on the four-point courses are respectively + 16° 10′, − 10° 0′, + 13° 0′, − 14° 20′. Correcting them for polar deviation they become + 14° 57′, − 12° 3′, + 14° 13′, − 12° 17′, and correcting again for apparent index error of + 1° 1 they are + 13° 45′, − 13° 15′, + 13° 1′, − 13° 29′; or an extreme difference of 44′ on a mean va of 13° 23′, instead of a difference of 6° 10′, as might appear at first sight. Again, in example No. the deviations on the four-point courses are respectively + 11° 15′, − 10° 0′, + 6° 15′, − 6° 3 and after applying the correction for polar deviation + 8° 35′, − 8° 20′, + 8° 55′, and − 8° Correcting for an apparent index error of + 0° 15′, they become + 8° 20′, − 8° 35′, + 8° 40′,

* In this case no fore-and-aft magnet was used. The transverse magnets compensated a deviation of about 28° to the port sid

† As the above are all examples of *plus* quadrantal deviation it has been thought desirable to add one or two deviation ta showing minus quadrantal deviation. Cases of this kind are so rarely met with that it has been supposed they do not exist. writer has met with very few instances, and in these the quadrantal error, as may be expected, was small. The extraordin quadrantal deviations of the compass No. I. in the experiments on board the "City of Baltimore" (see co-efficients at page 46 altogether an exceptional case. Deviation tables for mast compasses are also excepted, and, of course, cases in which the quadra error may be said to have been artificially produced. One example is that of a vessel in which the plates in her bottom had bec very much corroded and were quite thin. After new plates had been put in it was found that the minus quadrantal devia

—8° 25′, showing an extreme difference of only 20′ on a mean value of 8° 30′. But in example No. 6 a much larger difference remains after these corrections are made. Here the deviations on the four-point courses are respectively + 1° 0′, — 1° 0′, + 4° 0′, and — 9° 0′; after correction for polar deviation they are + 2° 0′, — 4° 14′, + 3° 0′, and — 5° 46′; and correcting for an apparent index error of — 1° 15′, they become + 3° 15′, — 2° 59′, + 4° 15′, and — 4° 31′; showing an extreme difference of 1° 32′ on a mean value of only 3° 45′, and apparently indicating a less capacity for horizontal induction in this ship in the direction of port to starboard than in the contrary direction.

Another explanation of the inequality in the amount of the quadrantal deviation in different quadrants may be suggested by the fact that in swinging ships it is not infrequent to get the deviations for some quadrants in a much less time than in others. Thus when the ship is to the windward side of the dock she is turned from point to point very quickly, but when on the leeward side the movement is so slow as to afford ample time for the earth's inductive power to have full effect. It has also been noticed that when ships have been swung for deviation in the river by change of tide the co-efficient for quadrantal deviation for the same compass has been smaller than when the ship was swung in dock.

The difference in the amount of the quadrantal deviations in the different quadrants when the polar force is uncompensated must sometimes be very great, and vary with the variations in the polar force on change of latitude. Thus in the standard compass of the "Royal Charter," with a polar magnetic force equal to about ·378 of the earth's horizontal force at Liverpool, it seems probable that that part of the deviation which is due to horizontal induction was nearly twice as great in two of the quadrants as it was in the two adjacent ones. An attempt has been made to show this by the following diagram and table of numerical results.

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which she had exhibited at two previous swingings had changed to a very small plus quadrantal deviation. In connexion with this topic it may also be noted that in the floating batteries "Meteor," "Thunder," and "Trusty," which are wood-built ships plated with iron, the quadrantal deviation is either small plus, or minus, being respectively + 0° 12′, — 0° 40′, and + 1° 37′, while the iron-built floating battery "Terror" has a plus quadrantal deviation of 6° 17′.

Ship's Head by (disturbed) Compass.	S.S. "Tamaulipus," steering compass,* Liverpool, June 25, 1859. Compensated with magnets only.	S.S. "Forwood."† Bridge compass, at Lota, April 4, 1860. No compensation.	S.S. "Forwood."† Deck-house compass, at Liverpool, Dec. 20, 1860. Compensated by magnets only.	Ship's Head by (disturbed) Compass.	S.S. "Tamaulipus," steering compass, Liverpool, June 25, 1859. Compensated with magnets only.	S.S. "Forwood." Bridge compass, at Lota, April 4, 1860. No compensation.	S.S. "Forwood." Deck-house compass, at Liverpool, Dec. 20, 1860. Compensated with magnets only.
	° ′	° ′	° ′		° ′	° ′	° ′
N.	1 0 E.	19 30 W.	1 20 W	S.	4 15 E.	19 0 E.	0 30 W.
N. by E.	0 30 W.	19 50 W.	1 40 W.	S. by W.	3 10 E.	18 0 E.	0 45 W.
N.N.E.	1 20 W.	19 0 W.	1 30 W.	S.S.W.	2 10 E.	16 30 E.	1 0 W.
N.E. by N.	2 20 W.	17 25 W.	1 10 W.	S.W. by S.	1 45 E.	14 25 E.	1 0 W.
N.E.	2 45 W.	15 0 W.	0 45 W.	S.W.	1 25 E.	12 0 E.	0 45 W.
N.E. by E.	2 30 W.	12 20 W.	0 15 W.	S.W. by W.	1 15 E.	9 25 E.	0 30 W.
E.N.E.	1 30 W.	8 45 W.	0 30 E.	W.S.W.	1 20 E.	6 20 E.	0 0
E. by N.	0 0	5 0 W.	1 20 E.	W. by S.	1 45 E.	3 30 E.	0 15 E.
E.	1 30 E.	1 0 W.	2 0 E.	W.	2 20 E.	0 30 E.	0 45 E.
E. by S.	3 0 E.	3 0 E.	2 30 E.	W. by N.	3 0 E.	2 40 W.	1 0 E.
E.S.E.	4 15 E.	7 0 E.	2 30 E.	W.N.W.	3 45 E.	5 45 W.	1 0 E.
S.E. by E.	5 30 E.	10 40 E.	2 25 E.	N.W. by W.	4 20 E.	9 0 W.	0 45 E.
S.E.	6 30 E.	14 15 E.	2 10 E.	N.W.	4 40 E.	12 0 W.	0 30 E.
S.E. by S.	6 30 E.	17 0 E.	1 30 E.	N.W. by N.	4 20 E.	14 40 W.	0 15 E.
S.S.E.	6 15 E.	18 45 E.	0 45 E.	N.N.W.	3 35 E.	16 40 W.	0 20 W.
S. by E.	5 15 E.	19 15 E.	0 0	N. by W.	2 25 E.	18 20 W.	0 45 W.

	Magnetic Co-efficients.				
	A	B	C	D	E
S.S. "Tamaulipus."	° ′	° ′	° ′	° ′	° ′
Steering compass	+2 20	—0 38	— 1 50	—3 4	+0 25
S.S. "Forwood."					
Bridge compass	—0 14	—1 27	—18 47	—1 23	+0 4
Deck-house compass	+0 15	+1 5	— 0 40	—1 5	—1 6

* Placed over a skylight.

† These compasses were situated before the funnel about midships. The iron beams of this vessel for a considerable distance both before and abaft the positions of these compasses are stated to be scarphed on each side. Each beam is thus formed of three pieces, the ends of the pieces nearest the side being connected by "fore-and-afters." This construction may possibly affect the inductive capacity of the beams as compared with that of beams formed only of one piece.

APPENDIX L.

DIAGRAM to show graphically the components of a ship's magnetism to produce a deviation tab similar to that of the standard compass of the "Royal Charter."

The construction, Plate XV., is made upon the hypothesis that the horizontal induction in the ir which affects the compass is proportional to the earth's horizontal force in combination with t polar force of the ship measured in the direction of the disturbed needle. The quadrantal deviatio on the four four-point courses, estimated in this way, are respectively + 9° 15′, − 9° 50′, + 5° 5 − 4° 20′.

The diagram and table are also intended to show that in investigating the components of a shi magnetism it is necessary to consider the plus quadrantal effect which is almost invariably observ as the result of a large plus quadrantal induction combined with a smaller minus quadran induction, the concealed and apparently cancelled parts of which may in some cases very seriou affect the directive power of the needle. It is believed that the deviations of the standard comp of the "Royal Charter," when she was first swung, are pretty closely represented in this diagra and it will be observed that when the ship's polar force acts in the same direction as the earth's fo on the needle, as when the ship's head is between East and E.S.E., the total directive power is r equal to the earth's horizontal force; while, when the ship's head is between W. and W.N. (correct magnetic), it is considerably less than one half of the earth's horizontal force.

In some cases, however, it is possible that the horizontal induction in the ship's iron may have opposite effect to that shown here, and tend to increase the directive power of the needle.

Description of the diagram, Plate XV. The references refer to the black letters and figures onl

The vertical line PO represents direction and amount of earth's horizontal force = 1.

The lines O.N., O.NNE, O.NE, &c., represent the direction and amount of the ship's p magnetic force = ·378 when ship's head correct magnetic is respectively N., N.N. N.E., &c.

The red lines proceeding from the ends of the lines last named represent in amount and direct the effect of the inductive forces acting in the direction of the disturbed needle on ship's horizontal transverse iron, producing plus quadrantal deviation.

The dotted red lines connected with the preceding in the same way show the effect of induct on the fore-and-aft iron, causing minus quadrantal deviation.

The blue lines proceeding from the last in like manner show the effect of induction in oblique horizontal iron of the ship.

The lines P 0″, P 2″, P 4″, P 6″, &c., are the resultants of the inductive forces, and show direction and force of the needle; the angles OP 0″, OP 2″, OP 4″, &c., show the de tion of the needle when the ship's head is N., N.N.E., N.E., &c. The dotted curve mar 5°, 10°, 15°, 20°, &c., is a scale of degrees for reading off the angles of deviation of needle from the meridian or line PO in degrees; those to the right of the meridian sl plus or easterly deviation; those to the left minus or westerly deviation.

It may be necessary to state that by ship's transverse iron is meant the excess of that wh produces plus quadrantal deviation above that which produces minus quadrantal deviation. By ship's fore-and-aft iron is meant the excess of that portion which produces minus quadrantal ab that which produces plus quadrantal deviation. In like manner by oblique horizontal iron is me the excess of that which produces minus deviation when ship's head is North above that wh produces plus quadrantal deviation; in effect, the action of a bar placed below the compass with ends N.E. and S.W. when ship's head is North,—this being sufficiently accurate for the sr deviation due to oblique horizontal iron.

The construction at the bottom of the diagram is to facilitate the cutting off, without the trou of calculation, lines proportional to the inductive force, or to the lines P 0″, P 2″, P 4″, and likewise proportional to the capacity (according to direction) of the fore-and-aft, transverse, and the oblique iron of the ship for horizontal induction.

$$\text{In this construction } PQ = \left\{\begin{array}{l}\text{half the capacity of the transverse iron of the}\\ \text{ship for earth's magnetic induction, when in}\\ \text{the direction of the magnetic meridian}\end{array}\right\} = \frac{0{\cdot}3}{2}$$

$$PR = \left\{\begin{array}{l}\text{half the capacity for earth's magnetic induction}\\ \text{of fore-and-aft iron of the ship when in the}\\ \text{direction of the magnetic meridian}\end{array}\right\} = \frac{0{\cdot}09}{2}$$

$$\text{also } PR = \left\{\begin{array}{l}\text{total capacity for earth's magnetic induction in}\\ \text{ship's oblique iron when in the direction of}\\ \text{the magnetic meridian}\end{array}\right\} = {\cdot}04$$

$$\text{and } Pp : PQ = NO : OP$$

$$\text{also } Pp' : PR = Pp : PQ$$

The numerical results are given in the annexed table. The columns *a* and *d* have been calcul and will afford by comparison with columns *b* and *e* some idea of the limits of error to which table is liable.

Magnetic North

E

ESE

ENE

SE

NE

SSE

NNE

S

agnetic West

Magnetic East.

N

SSW

SW

NNW

WSW

NW

WNW

W

E

ENE

ESE

Scale of degrees

SE

SE

W

WSW

WNW

SE

NNE

SSE

S

N

SW

E

SE

NW

S

SW

NW

R

NW

NE

W

N

ENE

SSW

N

NE

S

P

S

p

p

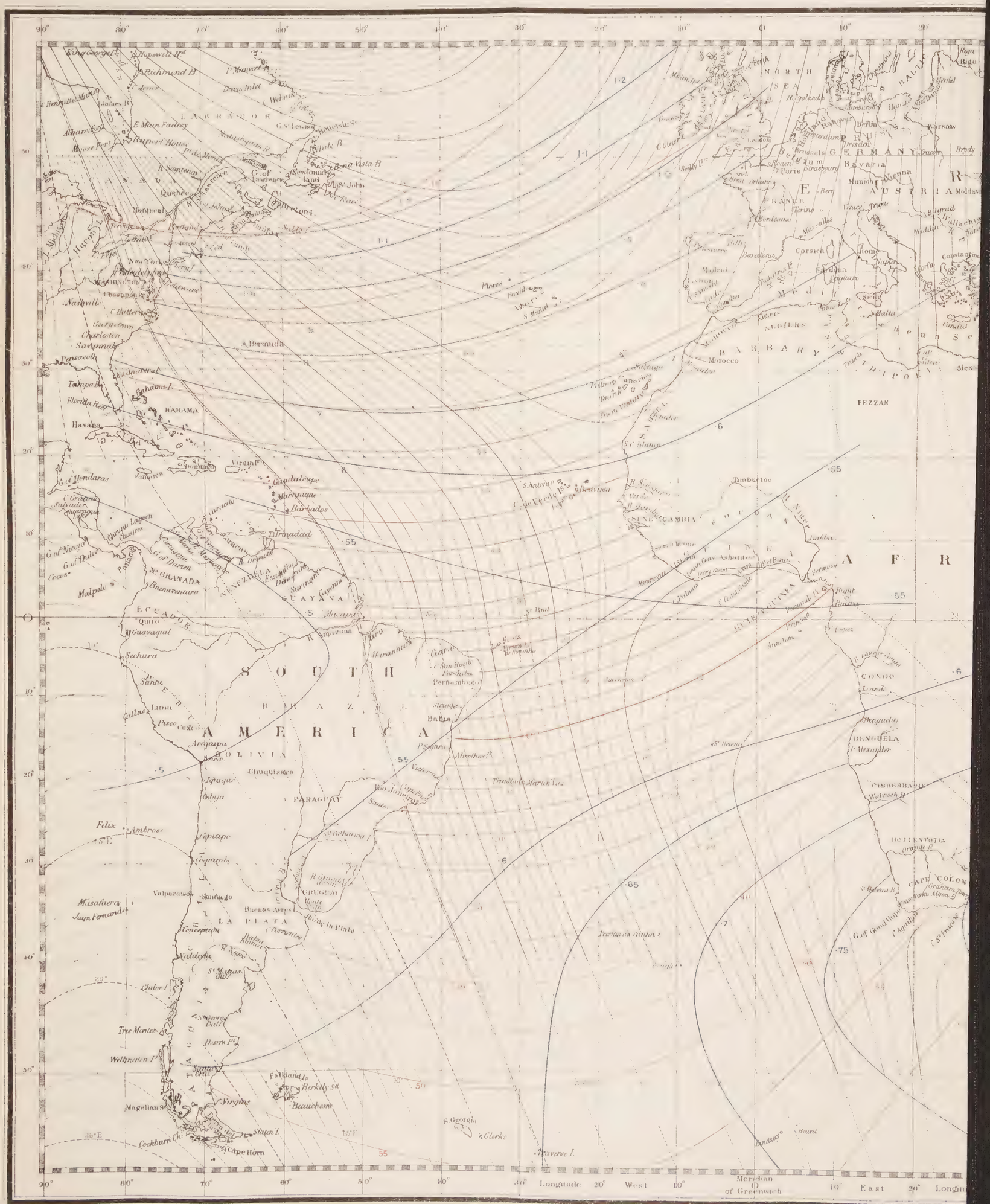
Day & Son, Lith.rs to the Queen

PLATE XVI. to precede Appendix M.

CHART OF THE CURVES OF EQUAL

BY FREDERICK

Reduced to that Epoch from numerous observations made by the Officers of H M Navy chiefly between
(The observations at Sea



THE RED CURVES REPRESENT LINES

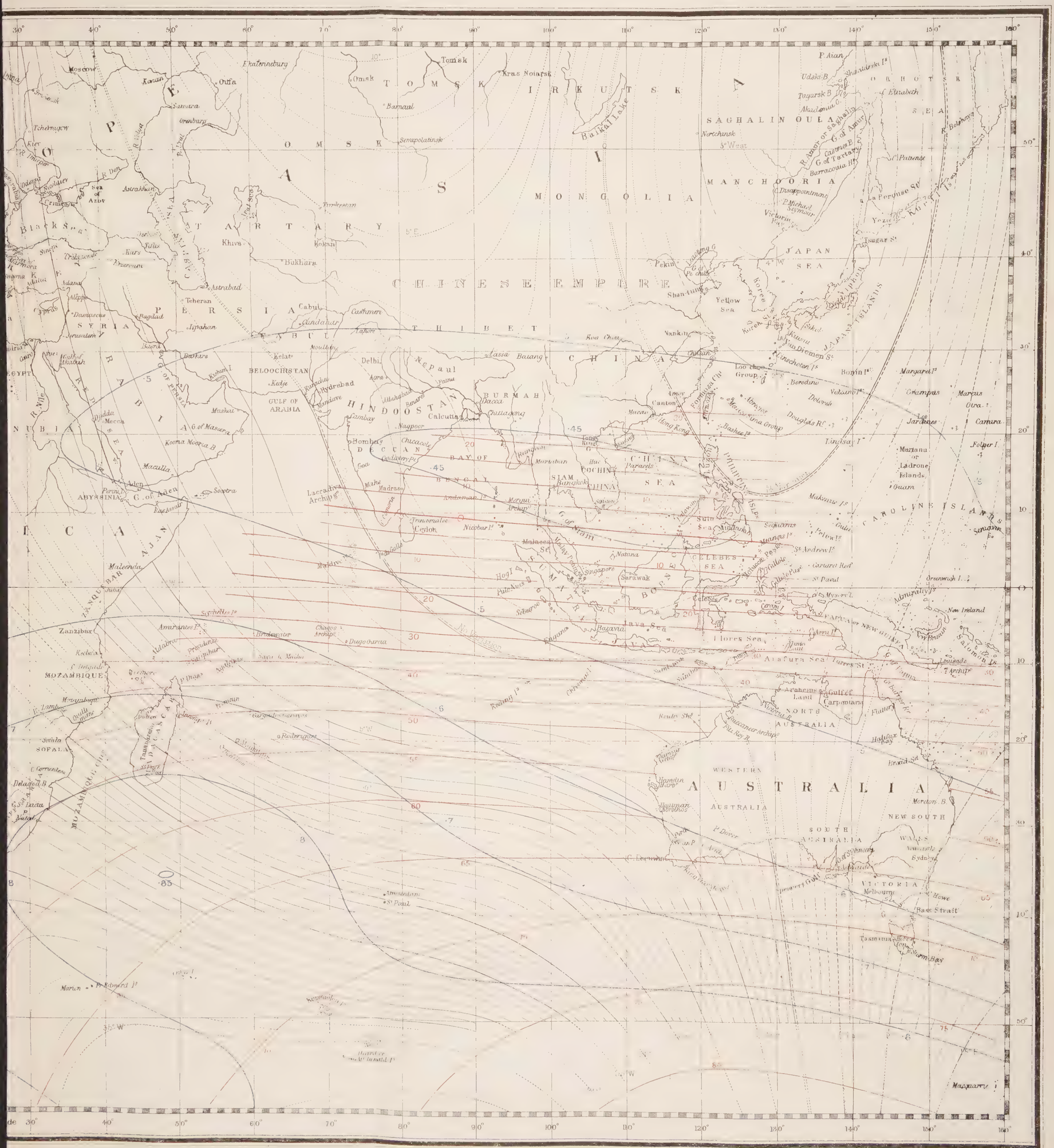
THE BLUE CURVES REPRESENT LINES

NOTE. The blue figures near the blue lines are inversely proportional to the permanent magnetism would produce at different stations. Thus the a deviation of the compass of 4½° only in the Bay of Bengal, a Hope, and a deviation of 15° in the Gulf of St. Lawrence.

MAGNETIC VARIATION, 1858.

J. EVANS. MASTER, R.N.

850 and 1858; as also from various Magnetic Surveys undertaken of late years by the British and Foreign Governments.
being corrected for the effects of the Ships iron.)



Day & Son Lith.rs to the Queen

OF EQUAL MAGNETIC DIP. The red figures indicate degrees of Dip.

OF EQUAL MAGNETIC HORIZONTAL FORCE.

Earth's horizontal magnetic force, and indicate the relative amount of deviation which a ship's same permanent magnetism which would cause a deviation of 10° at Liverpool, would produce leviation of 52° in the Atlantic near the Equator, a deviation of 8° near the Cape of Good

IRON SHIP "ADVANCE," CAPTAIN DALISON.

LIVERPOOL TO COLOMBO.

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	De ti
1855 May	North. ° ′	North. ° ′	West. ° ′	West. ° ′	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′	
2	46 55	46 21	11 45	10 37	..	..	Easterly.	7	..	..	..	..	..	..	..	
3	43 29	43 39	13 52	13 15	S. 70 W.	29	N.E. by E.	6	..	..	..	..	..	..	..	
4	39 59	40 10	14 26	14 12	S. 47 W.	16	N.E. by N.	5	..	..	..	..	..	..	..	
5	36 54	36 59	15 22	15 25	S. 77 W.	23	N.E. by N.	4	..	..	..	..	..	..	..	
6	34 41	34 42	17 1	16 50	S. 85 W.	11	N.E. by E.	3	62 0	23 0W.	S. 45 W.	21 15 W.	+1 45	S.W. ¾ S.	29 41	–
7	32 15	32 2	17 54	17 48	S. 37 W.	5	E. by N.	3	..	..	..	..	..	..	..	
8	29 23	29 19	..	19 26	..	..	E.N.E.	6	..	..	..	..	..	..	..	
9	25 59	25 4	21 12	21 13	S. 1 E.	45	E.N.E.	4	56 0	20 30W.	S. 50 W.	21 0 W.	– 0 30	S. 42 W.	13 0 W.	+
10	23 15	23 22	22 52	22 33	S. 65 W.	17	E.N.E.	4	53 0	19 30W.	S. 50 W.	20 0 W.	– 0 30	S. 42 W.	12 0 W.	+
11	20 43	20 43	24 10	24 4	S. 77 W.	5	N.E. by E.	3	..	..	..	..	..	..	..	
12	18 25	18 23	24 55	25 10	N. 85 E.	12	N.E.	4	..	..	..	..	..	..	..	
13	16 17	16 11	27 8	26 14	N. 83 W.	49	N.E.	4	47 0	16 0W.	S.W. by S. ½ S.	25 36 W.	– 9 36	S.W. by S.	20 0 W.	–
14	13 13	13 40	27 14	26 3	N. 89 W.	60	East	3	42 0	15 30W.	S. 17 W.	25 30 W.	–10 0	S. 11 W.	19 30 W.	–
15	11 0	11 12	26 22	26 59	N. 72 E.	39	E. by S.	3	40 0	15 30W.	S. 14 E.	29 27 W.	–13 57	S.S.E.	37 57 W.	–
16	8 41	8 32	24 40	24 1	S. 77 W.	40	East	3	..	..	..	..	..	..	..	
17	..	6 11	..	22 25	..	..	Vble. S.W.	2 to 4	..	..	..	..	..	..	..	
18	..	4 23	21 29	21 15	..	..	S.W. by S.	5	28 0	17 0W.	S. 10 E.	33 41 W.	–16 41	S. by E. ½ E.	26 49 W.	–
19	..	3 45	..	20 23	..	..	S.W.	2	..	..	..	..	..	..	..	
20	3 36	3 48	19 14	19 37	S. 62 E.	26	S.W. by S.	3	..	..	..	..	..	..	..	
21	..	3 6	..	18 58	..	..	S.W. by S.	4	25 0	18 0W.	S. 58 E.	26 51 W.	– 9 51	E.S.E.	17 20 W.	+
22	1 50	2 17	18 21	18 35	S. 41 E.	45	S. by W.	5	23 0	18 20W.	S. 59 W.	22 32 W.	– 4 12	S. 68 W.	41 32 W.	–
23	South. 0 22	South. 0 23	20 42	20 4	N. 88 W.	37	S.S.E.	4	..	..	..	..	..	..	..	
24	2 57	3 1	21 54	21 25	N. 42 W.	13	S.S.E.	5	17 30	16 45W.	S. 43 W.	21 8 W.	– 4 23	S. 45 W.	23 8 W.	–
25	6 27	5 24	23 10	23 24	S. 85 W.	45	S.E.	4	14 0	16 0W.	S. 27 W.	21 55 W.	– 5 55	S.S.W.	17 25 W.	–
											S. 1 E.	27 58 W.	–11 28	S. by E.	17 43 W.	–
											S. 8 W.	25 3 W.	– 9 33	South	17 3 W.	–
											S. 17 W.	23 48 W.	– 8 18	S. by W.	18 3 W.	–
	..	4 16	..	22 23	..	..	..	..	15 0	15 30	S. 25 W.	20 0 W.	– 4 30	S.S.W.	17 30 W.	–
											S. 33 W.	21 55 W.	– 6 25	S.W. by S.	22 40 W.	–
											S. 43 W.	21 14 W.	– 5 44	S.W.	23 14 W.	–
											S. 51 W.	19 43 W.	– 4 13	S.W. by W.	24 58 W.	–
26	8 3	8 7	23 40	23 37	N. 53 W.	7	S.E. by S.	4	10 0	15 40W.	S. 26 W.	22 10 W.	– 6 30	S.S.W.	18 20 W.	–
27	11 13	11 18	24 2	23 49	N. 65 W.	15	S.E.	4	4 0	15 0W.	S. 33 W.	23 20 W.	– 8 20	S. by W. ¼ W.	5 2 W.	
28	13 31	13 16	23 58	23 35	..	..	E.	2	0 0	14 30W.	? S. 22 W. S. 17 W.	23 58 W.	– 8 28	S. by W.	?17 2 W. 18 13 W.	–
	..	..	..	..	..	..	..	..	..	..	S. 12 W.	24 58 W.	–10 28	South	12 58 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 3 W.	25 58 W.	–11 28	S. by E.	11 43 W.	+
29	14 46	14 48	23 22	22 57	S. 78 W.	39	E. by N.	1	– 2 30	14 45W.	S. 14 E.	31 15 W.	–16 30	S.E. by S.	11 30 W.	+
30	16 1	15 48	..	23 5	..	..	Vble. E.	1	– 4 0	14 45W.	S. 18 W.	25 33 W.	–10 48	S. by W.	18 48 W.	–
31	16 43	16 47	..	22 27	..	..	N.W.	1	..	..	..	..	..	..	..	
June 1	18 5	17 58	21 34	21 50	S. 67 E.	18	S.E. by S.	5 to 8	–10 0	15 30W.	S. 42 W.	25 41 W.	10 11W.	S. 46 W.	29 30 W.	1
2	19 40	19 46	22 2	21 56	N. 46 W.	9	..	..	–11 0	15 15W.	S. 67 E.	23 26 W.	8 11W.	East	0 16 W.	1
	..	..	..	..	..	..	S.E. by S.	2	..	..	S. 41 W.	24 18 W.	9 3W.	S. 43 W.	26 18 W.	1
3	21 25	21 23	22 8	22 9	..	..	S.E. by E.	3	–13 0	14 40W.	S. 8 30 W.	27 54 W.	13 14W.	S. 5 30 E.	13 58 W.	
4	23 10	23 20	21 33	21 22	N. 50 W.	14	E. by N.	4	–16 0	14 50W.	S. 40 E.	31 22 W.	16 32W.	E.S.E.	3 52 W.	1
	..	..	..	..	..	..	..	..	..	..	S. 35 E.	32 22 W.	17 32W.	S.E. by E.	11 7 W.	
	..	..	..	..	..	..	..	..	..	..	S. 20 E.	31 52 W.	17 2W.	S.E.	6 52 W.	
	..	..	..	..	..	..	..	..	..	..	S. 12 E.	30 22 W.	15 32W.	S.E. by S.	8 37 W.	
	..	..	..	..	..	..	..	..	..	..	S. 3 E.	29 22 W.	14 32W.	S.S.E.	9 52 W.	
	..	..	..	..	..	..	..	..	..	..	S. 4 W.	28 22 W.	13 32W.	S. by E.	13 7 W.	
	..	..	..	..	..	..	..	..	..	..	S. 11 W.	27 22 W.	12 32W.	South	16 22 W.	
5	24 24	24 40	19 36	19 27	S. 64 W.	9	N.E. by E.	4	–20 0	15 30W.	S. 18 E.	34 10 W.	18 40W.	S.E.	7 10 W.	
	..	..	..	..	..	..	..	..	..	..	S. 20 E.	35 59 W.	20 29W.	S.E. ½ E.	5 22 W.	1

Iron Ship "Advance," Captain Dalison, Liverpool to Colombo—*continued.*

Latitude		Longitude		Difference between position by Observation and D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation
South.	South.	West.	West.		Miles.										
° ′	° ′	° ′	° ′	°				° ′	° ′	°	° ′	° ′	°	° ′	° ′
26 30	25 59	17 10	17 0	S. 67 W.	10	W.N.W.	6	−23 0	16 30W.	..	..	..	..	..	..
26 20	26 55	15 20	15 54	..	..	S.E. by E.	6	−23 0	18 0W.	N. 46 E.	1 24 W.	16 36 E.	N. 41 E.	3 36 E.	21 36 E.
..	..	..	..	..	..	..	..	..	..	N. 64 E.	8 15 W.	9 45 E.	N.E. ½ E.	5 8 E.	23 8 E.
..	..	..	..	..	..	..	..	..	..	E. by N.	17 8 W.	0 52 E.	..	..	..
25 17	25 5	14 18	13 25	S. 76 W.	50	S. Easterly	4	−23 0	18 40W.	N. 52 E.	3 12 W.	15 28 E.	N. 42 E.	6 48 E.	25 28 E.
..	..	..	..	..	..	..	..	..	..	N.E. ½ E.	1 16 W.	17 24 E.	N.E. by N.	5 36 E.	24 16 E.
25 57	25 27	13 40	14 14	S. 45 E.	42	Calm	..	−24 0	19 0W.	S. 15 E.	37 5 W.	18 5W.	S. 31 E.	21 5 W.	2 5W.
26 9	26 26	13 1	13 13	N. 58 E.	13	Northerly	2	..	..	..	..	..	..	..	..
..	27 16	..	11 48	..	..	W.N.W.	3	−27 0	20 0W	S. 8 E.	38 22 W.	18 22W.	S.E.	1 22 W.	18 38 E.
..	..	..	..	..	..	..	..	..	..	S. 15 E.	40 22 W.	20 22W.	S.E. by E.	0 53 E.	20 53 E.
..	..	..	..	..	..	..	..	..	..	S. 22 E.	39 22 W.	19 22W.	E.S.E.	4 8 E.	24 8 E.
..	..	..	..	..	..	..	..	..	..	S. 31 E.	35 22 W.	15 22W.	E. by S.	12 23 E.	32 23 E.
..	..	..	..	..	..	..	..	..	..	S. 35 E.	35 52 W.	15 52W.	East	19 8 E.	39 8 E.
28 42	28 51	9 15	9 36	N. 59 W.	17	N.W.	5	−30 30	..	..	..	..	..	..	..
29 14	29 47	6 50	6 31	N. 37 W.	41	S. & S.E.	7 to 3	−32 30	22 20W.	S. 53 E.	34 0 W.	11 40W.	..	..	..
29 48	30 3	4 46	4 53	N. 50 W.	14	N.E. & N.	6	..	..	..	..	..	..	..	..
31 41	31 32	1 14	1 19	S. 28 W.	10	N.	8	−39 0	24 0W.	S. 16 E.	44 34 W.	20 34W.	S.E. by E.½E.	1 18 E.	25 18 E.
		East.	East.												
33 20	33 23	2 58	2 45	..	..	W. by S.	10 to 8	−43 30	25 40W.	S. 19 E.	46 36 W.	20 56W.	E. by S. ½ S.	7 31 E.	33 11 E.
34 10	34 18	5 19	5 23	N. 22 W.	9	N.W.	4 to 9	−46 0	26 0W.	S. 18 E.	48 35 W.	22 35W.	E. by S. ½ S.	6 32 E.	32 32 E.
35 20	35 20	9 2	9 21	West	16	W.	9	..	..	..	..	..	..	..	..
36 22	36 27	12 44	12 52	N. 52 W.	8	W. by S.	6	..	..	..	..	..	..	..	..
37 8	37 21	15 58	16 0	N. 5 W.	20	Southerly	4	..	..	..	..	..	..	..	..
36 32	36 22	18 37	19 0	..	..	S.E. by E.	4	−53 30	29 40W.	N. 55 E.	9 40 W.	20 0 E.	N.E. ½ N.	5 58 E.	35 28 E.
..	36 49	..	18 26	..	..	E.S.E.	4	„	„	N. 55 E.	9 40 W.	20 0 E.	N.E. ½ N.	5 58 E.	35 28 E.
38 26	37 15	21 40	20 18	N. 42 E.	96	N.W. by W.	4 to 7	..	..	..	..	..	..	..	..
38 58	38 55	24 0	22 53	S. 86 E.	53	Calm.	0	−57 30	31 10W.	S. 24 E.	32 18 W.	1 8W.	S. 14 E.	42 18 W.	11 8W.
39 11	39 27	26 41	26 31	N. 25 E.	18	N. by E.	3	..	..	..	..	..	..	..	..
39 11	39 7	29 22	29 31	N. 51 W.	10	S.E. by S.	5	..	..	..	..	..	..	..	..
38 31	38 53	32 46	33 8	N. 22 W.	24	W. by S.	8	−60 0	30 40W.	S.E.	51 37 W.	20 57W.	N.E. by E.½E.	21 31 E.	52 11 E.
..	38 3	..	37 43	..	..	S.W.	9 to 11	−61 0	29 30W.	S.E. ½ S.	55 17 W.	25 47W.	N.E. by E.½E.	23 29 E.	52 59 E.
35 59	36 40	40 36	41 38	..	..	S.	11 to 7	..	..	..	..	..	..	..	..
35 12	35 25	42 40	43 36	N. 47 W.	47	S.E. by S.	6 to 3	..	..	..	..	..	..	..	..
34 43	34 49	43 43	43 50	N. 54 W.	10	Calm	0	..	..	..	..	..	..	..	..
35 11	34 53	44 52	44 43	S. 62 W.	38	W.N.W.	3	..	..	..	..	..	..	..	..
36 3	36 1	48 8	47 59	S. 72 E.	6	W. by N.	5	−62 0	25 30W.	S. 15 E.	42 30 W.	17 0W.	N. 77 E.	45 30 E.	71 0 E.
..	35 21	..	52 35	..	..	N.W. by W.	6	..	..	..	..	..	..	..	..
33 34	33 45	56 2	56 20	N. 54 W.	14	W.N.W. S.E.	5 to 1	−62 0	20 30W.	E. by N. ½ N.	10 53 W.	9 37 E.	N.E. ½ N.	22 52 E.	43 22 E.
..	..	..	..	..	..	..	..	..	..	N. 55 E.	3 51 E.	24 21 E.	N.E. by N.	25 6 E.	45 36 E.
..	..	..	..	..	..	..	..	..	..	N. 26 E.	24 15 E.	44 45 E.	N.N.E.	27 45 E.	48 15 E.
32 54	32 46	57 35	56 48	..	..	Vble E.N.E.	2	−62 0	19 30W.	N. 36 W.	8 30 W.	11 0 E.	N. 15 W.	29 30 W.	10 0W.
..	..	..	..	..	..	..	..	..	..	N. 15 W.	0 30 E.	20 0 E.	North	14 30 W.	5 0 E.
32 10	32 7	58 42	59 5	S. 82 W.	22	W.N.W.	1 to 3	−62 0	18 30W.	N. 55 E.	1 50 E.	20 20 E.	N.E. by N.	23 5 E.	41 35 E.
..	..	..	..	..	..	..	..	..	..	N. 15 E.	13 10 E.	31 40 E.	N. by E. ½ E.	11 18 E.	29 48 E.
31 40	31 15	61 37	61 32	..	..	N.N.W.	4	−62 0	17 20W.	E.N.E.	0 20 W.	17 0 E.	N.E. ½ N.	28 28 E.	15 48 E.
..	..	..	..	..	..	..	..	..	..	N. ½ E.	8 40 E.	26 0 E.	N. by E.	3 2 E.	20 22 E.
30 57	30 58	62 57	62 44	N. 62 E.	2	N.N.W.	1	−61 30	16 20W.	N.W. by N.½N.	1 20 E.	17 40 E.	N. by W.	11 32 W.	4 48 E.
29 27	29 13	63 27	63 44	N. 58 E.	21	S.E. to E.S.E.	4	..	..	..	..	..	..	..	..
26 33	26 42	64 2	64 46	N. 77 E.	40	E.S.E.	3	−57 30	11 0W.	N. 25 E.	6 38 E.	17 38 E.	N.N.E.	9 8 E.	20 8 E.
24 17	24 17	64 57	64 52	N. 84 E.	5	..	..	−57 0	10 15W.	N. 11 W.	4 38 E.	14 53 E.	North	6 22 W.	3 53 E.
20 27	20 59	65 27	65 52	N. 47 E.	33	Easterly	6 to 7	−53 30	7 40W.	N. 7 E.	7 21 E.	15 1 E.	N. by E.	3 6 E.	10 46 E.
..	..	..	..	..	..	..	..	..	..	N. 18 E.	8 20 E.	16 0 E.	N. by E. ½ E.	9 26 E.	17 6 E.
17 37	17 49	66 21	66 23	N. 10 E.	12	E.S.E.	5	−50 30	5 40W.	N. 22 E.	11 57 E.	17 37 E	N. 20 E.	13 15 E.	18 55 E.
14 38	14 32	6 0	67 30	S. 78 W.	30	E.S.E.	5	−47 30	4 30W.	N. 9 E.	9 30 E.	14 0 E.	N. 15 E.	3 30 E.	8 0 E.
11 7	11 15	67 51	8 52	N. 75 W.	33	E.S.E.	4 to 7	−41 0	3 20W.	N. 2 E.	6 9 E.	9 29 E	N. 8 E.	0 9 E	8 20 E.

Iron Ship "Advance," Captain Dalison, Liverpool to Colombo—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	De ti
1855 July	South. ° ′	South. ° ′	East. ° ′	East. ° ′	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′	°
17	8 26	8 29	65 41	69 7	N. 83 W.	30	Vble. Ey.	5 to 7	−37 0	3 0W.	N. 40 E.	11 20 E.	14 20 E.	N.E. by N.	17 35 E.	20
18	6 22	6 30	70 20	70 25	N. 33 W.	11	V. S.E. by S.	6	−31 0	2 0W.	..	..	..	..	..	
19	8 17	8 23	72 15	72 9	N. 23 E.	12	S.	4	−26 0	1 30W.	N. 28 E.	14 0 E.	15 30 E.	N. 28 E.	14 0 E.	15
20	0 50	1 14	73 9	73 10	N. 3 W.	23	S.	3	..	..	..	..	..	..	..	
21	North. 0 25	North. 0 14	74 18	74 34	N. 22 W.	21	S.S.W.	2	−19 0	0 40W.	N. 30 E.	13 0 E.	13 14 E.	N. 30 E.	13 0 E.	13
22	1 25	1 26	75 32	75 35	..	..	N.W.	4	−16 0	0 25W.	N. 30 E.	14 30 E.	14 55 E.	N. 30 E.	14 30 E.	14
23	3 26	3 40	77 56	77 33	S. 53 E.	29	N.W.	7	−13 0	0 0	N. 15 E.	14 12 E.	14 12 E.	N. by E. ½ E.	9 20 E.	9
24	6 7	5 53	79 29	79 29	North	14	Vle. W.N.W.	5	− 7 0	0 20 E.	N.N.E.	11 0 E.	10 40 E.	N. 20 E.	13 30 E.	13

MADRAS TO LIVERPOOL.

1855 Oct. 6	North. 12 18	North. ..	East. 82 6	East. ..	..	..	East	1 to 4	..	..	..	..	..	..	..	
7	10 51	10 51	81 15	81 22	East	17	West	3	..	..	..	..	..	..	..	
8	8 34	9 13	81 53	82 11	S. 67 W.	43	S.S.W.	4 to 1	− 2 0	0 45E.	S. 2 E.	7 27 W.	8 12W.	S. 14 E.	4 33 E.	3
9	8 13	8 22	82 27	82 12	S. 59 E.	18	South	1	− 4 0	0 45E.	S. 26 E.	1 48 W.	2 33W.	S. 45 E.	17 12 E.	16
10	7 11	7 20	84 12	83 0	S. 83 E.	73	S.S.W.	4	..	..	..	..	..	..	..	
11	6 33	6 34	84 36	84 55	S. 86 W.	18	S.S.W.	3	− 6 0	0 45E.	W. by N.	0 0	0 45W.	N.W. by W.	22 30 W.	23
	..	..	..	..	..	..	..	..	..	..	S. 35 E.	9 30 W.	10 15W.	S.E. by E.	11 45 E.	11
12	5 21	5 32	86 19	86 44	S. 65 E.	28	S.S.W.	3	− 7 30	1 0E.	S. 42 E.	9 25 W.	10 25W.	S. 65 E.	13 35 E.	12
13	4 25	4 18	87 30	86 40	N. 48 W.	50	S.S.W.	3	− 9 0	1 0E.	S. 7 W.	7 42 W.	8 42W.	South	0 42 W.	1
14	3 21	3 16	88 32	88 13	N. 47 E.	20	S.W. by W.	3	..	..	..	..	..	..	..	
15	2 52	2 47	89 18	88 46	N. 80 E.	30	West	1	..	..	..	..	..	..	..	
16	1 5	1 11	89 22	89 7	S. 68 E.	16	West	4	..	..	..	..	..	..	..	
17	South. 0 30	South. 0 27	..	89 20	..	..	Westerly	1 to 3	..	..	..	..	..	..	..	
18	1 43	1 28	89 58	89 10	S. 72 E.	50	Westerly	1	−20	0 40E.	S. 14 W.	6 39 W.	7 19W.	S. 10 W.	2 39 W.	3
19	2 25	2 21	90 12	89 42	S. 82 E.	31	N.W.	2	..	..	..	..	..	..	..	
0	2 45	2 50	90 26	89 55	N. 80 E.	32	South	1	..	..	..	..	..	..	..	
21	3 45	3 54	89 28	89 16	N. 53 E.	14	S.S.E.	5	..	..	..	..	..	..	..	
22	..	5 28	..	87 45	..	..	East	5	−29	0 0	S. 67 W.	2 11 W.	2 11W.	S.W. ½ W.	14 49 E.	14
23	7 9	7 12	86 0	85 45	N. 77 E.	16	S.E.	5	..	..	..	..	..	..	..	
24	8 5	8 55	83 29	84 5	N. 85 E.	36	S.E. by S.	3	−34 0	0 50W.	S. 65 W.	2 19 W.	1 29W.	West	27 19 W.	26
	..	..	..	..	..	..	..	..	..	..	S. 47 W.	4 00 W.	3 10W.	W.S.W.	24 30 W.	23
25	10 2	10 4	82 13	82 2	N. 75 W.	10	East	1	−37 30	1 20W.	S. 47 W.	4 00 W.	2 40W.	S. 74 W.	31 0 W.	29
26	..	10 31	81 8	81 43	..	..	Calm	0	..	..	..	..	..	.	..	
27	11 21	11 3	80 49	80 32	N. 49 E.	16	E.S.E.	1	..	..	..	..	..	..	..	
28	12 24	12 27	79 21	79 16	N. 70 E.	6·7	S.S.E.	5	−41 30	2 0W.	S. 58 E.	3 53 W.	1 53W.	S. 84 E.	29 53 W.	27
29	14 6	13 59	76 28	77 6	S. 75 E.	27	S. by E.	6	..	..	..	..	..	..	..	
30	15 23	15 53	74 30	74 44	S. 48 W.	23·5	S.S.E.	4	−47 30	3 20W.	S. 59 W.	5 19 W.	1 59W.	West	36 19 W.	32
31	16 46	16 50	71 46	72 24	N. 80 E.	21·5	S. by W.	6	..	..	..	..	..	..	..	
Nov. 1	17 58	18 16	69 20	69 35	N. 52 W.	29	S. by W.	5	−52 0	5 30W.	S. 66 W.	7 0 W.	1 30W.	W. by N.	42 15 W.	36
2	19 28	19 28	66 26	66 3	West	3	S. by E.	5	−53 0	7 0W.	S. 59 W.	10 0 W.	3 0W.	West	41 0 W.	34
3	20 17	20 26	64 13	63 58	N. 17 E.	9·4	..	..	−53 30	7 40W.	S. 77 W.	9 37 W.	1 57W.	W.N.W.	45 7 W.	37
	..	..	..	..	..	..	S.E. by S.	6	..	..	S. 77 W.	10 10 W.	2 30W.	W.N.W.	45 40 W.	38
4	21 32	21 12	61 9	61 9	S. 86 W.	18	South	5	−54 0	9 0W.	..	..	..	..	..	
5	22 0	22 32	59 17	59 5	N. 25 W.	35·3	S.E.	4	−55 0	10 20W.	S. 77 W.	12 13 W.	1 53W.	N. 63 W.	52 13 W.	41
6	23 3	23 2	57 27	57 15	N. 82 E.	7	S.E. by E.	4	−55 30	11 45W.	..	..	..	..	..	
7	23 56	23 59	55 42	55 34	N. 67 E.	8	E.S.E.	3	−56 30	13 15W.	S. 77 W.	17 17 W.	2 2W.	N. 63 W.	54 17 W.	47
8	24 38	24 28	54 33	54 33	South	10	E.S.E.	1	−57 0	13 45W.	S. 80 W.	15 52 W.	2 7W.	N. 60 W.	55 53 W.	42
9	25 4	25 13	54 15	53 59	S. 72 E.	3	East S.W.	1 3	−57 0	14 20W.	S. 69 W.	15 2 W.	0 42W.	N. 67 W.	59 2 W.	4
10	25 46	26 13	51 50	52 52	N. 5 W.	27	S.S.E.	6	..	..	..	..	..	..	..	
11	27 12	27 18	49 39	49 7	N. 79 W.	31	S.E.	4	..	..	..	..	..	..	..	
12	..	28 10	47 56	47 29	..	..	E.S.E.	3	..	..	..	..	..	..	..	
13	28 39	29 3	45 4	45 6	N. 5 W.	24	S.S.W.	6	..	..	..	..	..	..	..	
14	29 15	29 39	42 33	42 20	N. 24 E.	26	S.W. by W.	6	−58 0	23 15W.	S. 78 W. S. 88 W.	22 42 W. 20 43 W.	0 33 E. 2 32 E	N. W N.W. W	2 42 W. 61 16 W.	3 3

Iron Ship "Advance," Captain Dalison, Madras to Liverpool—*continued.*

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
South.	South.	East.	East.		Miles.										
° ′	° ′	° ′	° ′					° ′	° ′		° ′	° ′		° ′	° ′
30 36	30 34	39 20	39 27	N. 67 W.	5	S.W. by S.	5	−57 30	24 45W.	W. 6 S.	25 8 W.	0 23W.	N. 51 W.	70 0 W.	45 15W.
31 58	31 49	37 12	37 14	S. 65 E.	2·3	South	2	−57 30	26 15W.	S. 76 W.	25 0 W.	1 15 E.	N. 67 W.	62 0 W.	35 45W.
..	..	..	..	..	..	..	..	..	..	S. 82 W.	26 15 W.	0 0	N. 54 W.	70 15 W.	44 0W.
32 36	32 32	35 5	35 10	N. 47 W.	6	N.Easterly	3	−57 30	27 15W.	N. 70 W.	25 46 W.	1 29 E.	N.W. ½ W.	65 23 W.	37 8W.
..	..	..	..	..	..	..	..	..	..	N. 87 W.	25 2 W.	2 13W.	N.W.	67 2 W.	39 47W.
32 51	32 47	33 5	33 10	S. 51 E.	5·3	East by N.	3	−57 30	28 0W.	N. 85 W.	27 53 W.	0 7 E.	N. 44·5 W.	68 23 W.	40 23W.
..	..	..	..	..	..	..	..	..	..	N. 68 W.	26 55 W.	1 5 E.	N. 34 W.	60 55 W.	32 55W.
33 18	33 2	30 34	30 32	S. 6 E.	16	E.N.E.	2	..	..	..	..	..	..	..	..
33 48	33 40	29 30	28 54	..	..	East	3	−57 0	29 15W.	N. 70 W.	26 29 W.	2 46 E.	N. 34·5 W.	61 59 W.	32 44W.
34 16	34 1	27 46	27 17	S. 58 E.	28·4	S.W. S.E.	4	−56 0	29 30W.	N. 69 W.	24 54 W.	4 36 E.	N. 35 W.	58 55 W.	29 25W.
34 19	34 22	25 6	25 50	N. 85 W.	33·5	S.E. N.E.	3 4	..	..	..	..	..	..	..	..
35 13	35 6	23 7	23 1	..	..	S.E. by S.	4	−55 0	30 0W.	N. 47 W.	23 56 W.	6 4 E.	N. 19 W.	51 56 W.	21 56W.
..	..	..	..	..	..	..	..	..	..	S. 88 W.	24 8 W.	5 52 E.	N. 49 W.	67 8 W.	37 8W.
34 57	34 59	21 9	21 4	N. 65 E.	5	N.W. by W.	7	−54 30	29 50W.	N. 58 W.	24 48 W.	5 2 E.	N. 27 W.	55 48 W.	25 58W.
34 52	35 21	21 2	20 35	..	..	N.W. by W.	5	„	„	S. 16 W.	39 35 W.	9 45W.	S. 44 W.	67 35 W.	37 45W.
35 35	35 33	20 37	20 8	S. 83 E.	16·5	N.N.W.	6	..	..	..	..	..	..	..	..
35 11	36 19	20 35	19 49	N. 78 E.	39	N.W. by W.	2	−54 30	29 50W.	N. 3 E.	14 45 W.	14 5 E.	N. 14 E.	25 45 W.	4 5 E.
34 50	35 00	20 14	20 0	N. 49 W.	15	W.S.W.	2	„	„	S. 84 W.	30 18 W.	0 28W.	N. 54 W.	72 18 W.	42 28W.
34 43	34 45	18 39	18 34	N. 62 E.	4·3	S.E. South	5 6	−53 0	29 30W.	N. 15 W.	15 0 W.	14 30 E.	N. 1 E.	31 0 W.	1 30W.
..	..	..	..	..	..	..	..	..	..	N. 9 W.	17 11 W.	11 19 E.	N. 4 E.	30 11 W.	0 41W.
..	..	..	..	..	..	..	..	..	..	N. 19 W.	19 11 W.	10 19 E.	N. 3 W.	35 11 W.	5 41W.
33 28	33 28	16 57	17 35	West	45·5	N.E. by E.	3	−52 0	29 20W.	N. 65 W.	26 47 W.	2 33 E.	..	..	..
31 59	31 50	15 28	15 33	S. 27 W.	10	S.S.W.	4	..	..	..	..	..	..	..	..
29 53	29 48	..	12 56	..	..	S.W. by S.	5	..	..	..	..	..	..	..	..
27 49	27 44	11 10	10 25	S. 83 E.	41	S.W. by S.	5	..	..	..	..	..	..	..	..
26 26	26 29	9 4	9 14	N. 73 E.	10	S. by W.	3	−41 0	27 40W.	N. 35 W. N. 30 W.	22 0 W. 17 30 W.	5 40 E. (Az) 10 10 E.	N. 15 W.	42 0 W.	14 20W
25 18	25 20	7 27	7 30	N. 58 W.	4	S. by E.	4	−39 30	27 20W.	N. 32 W.	21 50 W.	5 30 E.	N. 13 W.	40 50 W.	13 30W.
24 10	24 11	5 43	5 51	N. 82 W.	8·2	S. by E.	2	..	..	..	..	..	..	..	..
23 23	23 23	4 29	4 34	West	4·8	S. by W.	1	−35 0	26 45W.	N. 29 W.	20 59 W.	5 46 E.	N. 11 W.	38 59 W.	12 14W.
22 21	22 34	3 25	3 25	North	12	W.S.W.	2	−32 30	26 30W.	N. 29 W.	21 23 W.	5 7 E.	N. 11 W.	39 23 W.	12 53W.
..	..	..	..	..	..	..	..	..	..	N. 29 W.	19 39 W.	6 51 E.	N. by W.	37 24 W.	10 54W.
..	..	..	..	..	..	..	..	..	..	N. 14 W.	18 39 W.	7 51 E.	North	32 39 W.	6 9W.
21 11	21 30	2 24	2 21	N. 9 E.	9	S.S.W.	3	−30 0	26 20W.	N. 32 W.	19 35 W.	6 45 E.	N. 13 W.	38 35 W.	12 15W.
20 16	20 14	1 2	1 15	S. 59 W.	3·9	S. by E.	3	..	..	..	..	..	..	..	..
19 25	19 12	West. 0 12	West. 0 18	S. 22 E.	14	S. by E.	3	−25 0	25 40W.	N. 34 W.	18 51 W.	6 49 E.	N. 15 W.	37 51 W.	12 11W.
18 24	18 22	1 42	1 38	S. 64 W.	4·6	S.E. by S.	3	−22 30	25 20W.	N. 32 W.	20 23 W.	4 57 E.	N. 14 W.	38 32 W.	13 12W.
17 41	17 32	3 2	2 55	S. 34 W.	10·9	S.S.E.	4	−20 30	24 45W.	N. 32 W.	20 9 W.	4 36 E.	N. 15 W.	37 9 W.	12 24W.
16 41	16 40	4 28	4 23	S. 80 W.	5·7	..	..	−17 0	24 20W.	N. 32 W.	19 20 W.	5 0 E.	N. 14 W.	37 20 W.	13 0W.
..	..	..	..	..	..	..	..	..	..	N. 39 W.	21 51 W.	2 29 E.	N. 20 W.	39 51 W.	15 31W.
16 41	16 40	4 28	4 23	S. 80 W.	5·7	S.S.E.	4	−17 0	24 20W.	N. 27 W.	19 47 W.	4 33 E.	N. 13 W.	33 17 W.	8 57W.
..	..	..	..	..	..	..	..	..	..	N. 10 W.	16 47 W.	7 33 E.	North	26 47 W.	2 27W.
15 48	15 48	5 42	5 46	West	2·9	S.S.E.	2	−15 0	24 0W.	N. 30 W.	18 14 W.	5 46 E.	N. 15 W.	33 14 W.	9 14W.
..	..	..	..	..	..	..	..	..	..	N. 24 W.	19 14 W.	4 46 E.	N. 11 W.	32 14 W.	8 14W.
14 54	14 54	6 45	6 41	West	3·9	S.E. by S.	4	−13 0	23 40W.	N. 26 W.	17 10 W.	6 30 E.	N. 11 W.	32 10 W.	8 30W.
13 48	13 45	8 14	7 59	S. 74 W.	17·7	S.E. by S.	3	−10 30	23 0W.	N. 34 W.	19 20 W.	3 40 E.	N. 18 W.	35 21 W.	12 21W.
..	..	..	..	..	..	..	..	..	..	N. 32 W.	18 00 W.	5 0 E.	N. 16 W.	34 0 W.	11 0W.
12 47	12 42	9 13	9 23	S. 63 E.	11·0	S. by E.	4	..	..	..	..	..	..	..	..
11 36	11 33	10 36	10 21	S. 81 W.	15·0	S.S.E.	4	−4 0	22 15W.	N. 27 W.	18 30 W.	3 45 E.	N. 12 W.	33 30 W.	11 15W.
10 21	10 41	11 59	12 8	S. 52 E.	11	S.E. by S.	4	..	..	..	..	..	..	..	..
8 57	9 2	13 4	13 14	N. 61 E.	11	S.E. by S.	4	2 0	21 20W.	N. 19 W.	15 43 W.	5 37 E.	N. 9 W.	25 43 W.	4 23W.
7 40	7 35	14 19	14 24	S. 48 E.	7	S.E. by S.	4	4 0	21 0W.	N. 51 W.	20 50 W.	0 10 E.	N. 32 W.	39 50 W.	18 50W.

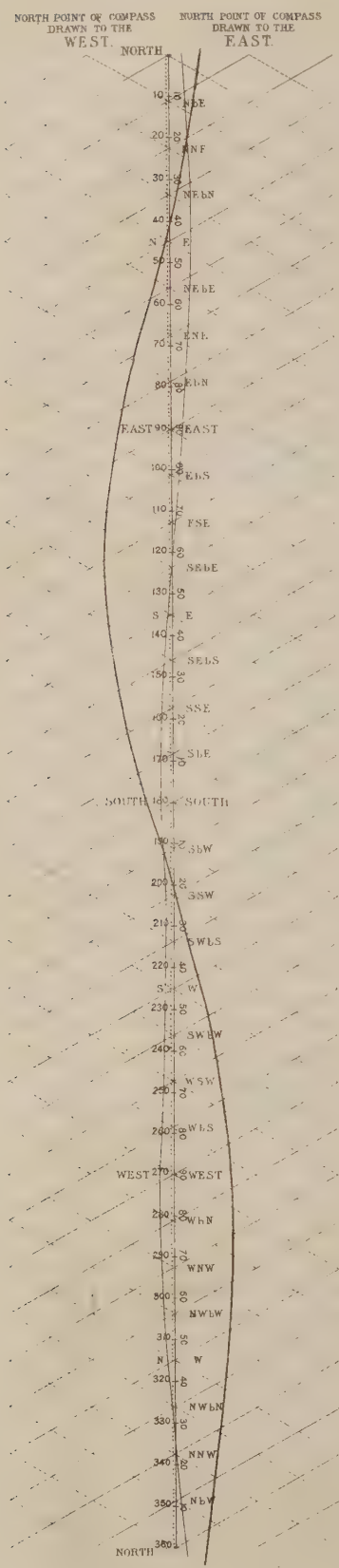
Iron Ship "Advance," Captain Dalison, Madras to Liverpool—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated)	
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.
1855.	South.	South.	West.	West.		Miles.			° ′	° ′	°	° ′	° ′	°	° ′
Dec. 23	6 8	6 5	15 24	15 24	South	3	S.E. by S.	4	..	..	..	..	..	..	..
24	4 35	4 35	16 28	16 22	West	6	S.E. by S.	4	..	..	..	..	..	..	..
25	3 6	3 4	17 41	18 27	S. 84 W.	14	S. by E.	4	..	..	..	..	..	..	..
26	1 40	1 40	18 44	18 25	West	15	S.S.E.	3	17 30	18 30W.	N. 19 W.	14 1W.	4 29E.	N. 7 W.	26 1W.
27	0 29	0 27	19 9	19 14	N. 30 E.	9	S. by E.	1	20 0	18 0W.	N. 19 W.	12 41W.	5 19E.	N. 1 W.	24 41W.
	..	..	..	..	..	..	..	..	..	..	N. 19 W.	12 38W.	5 22E.	N. 1 W.	24 38W.
	..	..	..	..	..	..	..	..	..	..	N. 3 W.	11 21W.	6 39E.	N. 7 E.	21 21W.
	..	..	..	..	..	..	..	..	..	..	N. 2 E.	10 21W.	7 39E.	N. 11 E.	23 21W.
28	North. 0 59	North. 0 51	19 58	19 26	N. 76 W.	34	South	3	22 30	17 40W.	N. 11 E.	9 14W.	8 26E.	N. 18 E.	16 14W.
29	..	2 34	..	19 58	N. 73 W.	45	Variable	3	..	..	..	..	..	..	..
30	3 16	3 3	20 44	20 1			Easterly	1	26 0	17 20W.	N. 61 W.	18 35W.	1 15W.	N. 47 W.	32 35W.
31	..	3 25	20 50	20 49			Vble. S.E.	1	„	„	N. 62 W.	18 12W.	0 52W.	N. 47 W.	33 12W.
1855 Jan. 1	..	4 18	..	20 53	S. 63 E.	37	Calm	0	..	..	..	..	..	..	..
2	5 2	5 19	20 33	21 6			Easterly	2	..	..	..	..	..	..	..
3	5 21	5 19	20 23	20 33	N. 73 E.	11	Calm	0	23 0	17 30W.	N. 20 W.	12 21W.	4 9E.	N. 9 W.	23 21W.
4	5 37	5 36	20 18	20 30	N. 85 E.	12	N.E. by E.	1	..	..	..	..	..	..	..
5	6 9	6 17	20 41	20 46	N. 32 E.	10	Easterly	2	30 0	17 15W.	N. 10 W.	12 13W.	5 2E.	N. 1E.	23 13W.
	..	..	..	..	..	..	..	..	..	..	N. 25 W.	14 13W.	3 2E.	N. 13W.	26 13W.
	..	..	..	..	..	..	..	..	..	..	N. 35 W.	16 13W.	1 2E.	N. 21W.	30 13W.
6	6 24	6 47	21 44	21 9	S. 41 E.	6	N.E. by E.	1 to 4	32 0	17 15W.	N. 25 W.	14 17W.	2 58E.	N. 13W.	26 17W.
7	7 53	8 00	22 45	22 19	S. 74 W.	26	N.E. by E.	4	..	..	..	..	..	..	..
8	9 17	9 25	24 2	23 54	S. 45 W.	11	N.E. by E.	4	37 0	16 20W.	N. 23 W.	11 39W.	4 41E.	N. 11W.	23 39W.
9	10 37	10 36	25 2	25 13	N. 82 E.	11	N.E.	4	..	..	..	..	..	..	..
10	12 4	12 5	26 40	25 57	N. 89 W.	40	N.E. by E.	5	42 0	16 0W.	N. 3 W.	6 27W.	9 33E.	N. 6E.	15 27W.
11	13 37	13 47	27 52	27 48	S. 20 W.	10	N.E. by E.	6	44 0	15 50W.	N. 30 W.	12 16W.	3 34E.	N. 22W.	20 16W.
12	15 13	15 17	29 0	28 43	S. 70 W.	11	N.E. by E.	6	..	..	..	..	..	..	..
13	16 38	16 34	29 57	29 49	N. 62 W.	9	E.N.E.	4	48 0	15 15W.	N. 24 W.	9 32W.	5 43E.	N. 13W.	20 32W.
	..	..	..	..	..	..	..	..	..	..	N. 10 W.	7 30W.	7 45E.	North	17 30W.
14	17 54	17 54	30 12	30 4	West	7	East S.W.	2 4	50 30	15 30W.	N. 6 E.	5 33W.	9 57E.	N. 16E.	15 33W.
	..	..	..	..	..	..	..	..	..	..	N. 12 E.	5 31W.	9 59E.	N. 20E.	15 31W.
	..	..	..	..	..	..	..	..	..	..	N. 27 E.	6 59W.	8 31E.	N. 36E.	15 59W.
	..	..	..	..	..	..	..	..	..	..	N. 43 E.	7 41W.	7 49E.	N. 48E.	12 41W.
	..	..	..	..	..	..	..	..	..	..	N. 12 E.	4 31W.	10 59E.	N. 21E.	13 31W.
	..	..	..	..	..	..	..	..	..	..	N. 26 E.	5 31W.	9 59E.	N. 34E.	13 31W.
	..	..	..	..	..	..	..	..	..	..	N. 54 E.	8 31W.	6 59E.	N. 57E.	11 31W.
15	18 57	18 50	29 22	29 41	N. 70 E.	20	W.N.W. Northerly	4 2	51 30	16 20W.	S. 75 E.	21 26W.	5 6W.	S. 87E.	9 26W.
	..	..	..	..	..	..	..	..	..	..	N. 52 W.	14 16W.	2 4E.	N. 40W.	26 16W.
16	19 39	19 45	30 13	30 4	S. 55 W.	11	N. Easterly	3	52 0	16 0W.	N. 21 W.	11 36W.	4 24E.	N. 10W.	22 36W.
17	..	21 7	..	31 3			N.E. by E.	3	..	..	..	..	..	..	..
18	22 7	22 17	..	31 35	S. 87 W.	40	E.N.E.	2	..	..	..	..	..	..	..
19	22 53	22 54	32 19	31 38			South W.N.W.	1	..	..	..	..	..	..	..
20	23 40	23 49	32 6	32 10	S. 26 E.	9	W.N.W.	1	56 30	17 0W.	N. 15 E.	3 16E.	20 16E.	N. 25E.	6 44W.
21	24 39	24 45	32 2	32 10	S. 49 E.	9	N.E. by E. E. by N.	4	57 30	18 0W.	N. 17 W.	1 51W.	16 9E.	N. 7W.	11 51W.
22	26 19	26 19	32 28	32 5	West	21	East	3	59 0	18 20W.	N. 2 W.	6 56W.	11 24E.	N. 9E.	17 56W.
	..	..	..	..	..	..	..	..	..	..	N. 11 W.	7 26W.	10 44E.	North	18 26W.
	..	..	..	..	..	..	..	..	..	..	N. 23 E.	4 8W.	14 12E.	N. 34E.	15 8W.
	..	..	..	..	..	..	..	..	..	..	N. 10 E.	5 8W.	13 12E.	N. 23E.	17 8W.
	..	..	..	..	..	..	..	..	..	..	N. 26 W.	11 8W.	7 12E.	N. 14W.	23 8W.
	..	..	..	..	..	..	..	..	..	..	N. 21 W.	19 8W.	0 48W.	N. 9W.	31 8W.
23	27 17	27 15	32 36	32 31	N. 67 W.	5	Vble.E.N.E.	1	60 0	19 0W.	N. 38 E.	7 22W.	11 38E.	N. 47E.	16 22W.
	..	..	..	..	..	..	..	..		..	N. 17 E.	5 22W.	13 38E.	N. 28E.	16 52W.
	..	..	..	..	..	..	..	,		..	North	6 54W.	12 6E.	N. 11E.	17 54W.

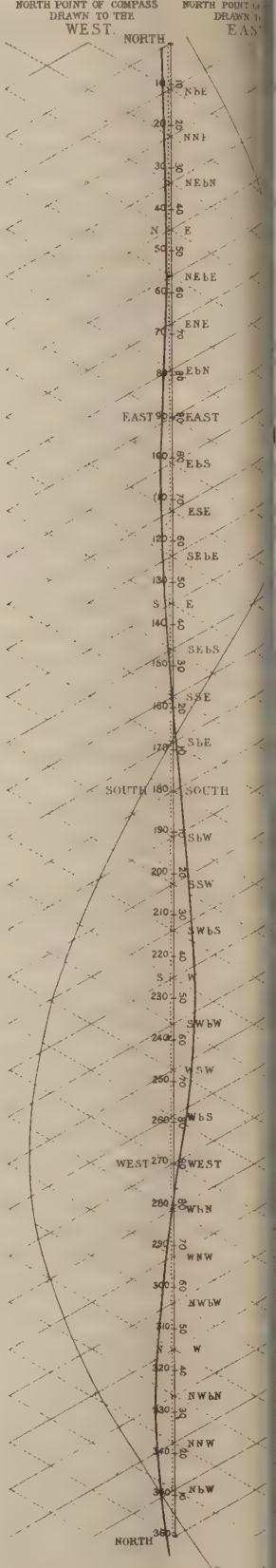
IRON SHIP "ADVANCE"

SECOND VOYAGE.

STANDARD COMPASS.



STEERING COMPAS



The Strong Curves show Approximate Deviation at Liverpool.
The Fine Curves show Approximate Deviation South of Cape of Good Hope.

Day & Son, Lith. to the

Iron Ship "Advance," Captain Dalison, Madras to Liverpool—*continued*.

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
y ser- ion.	By D. R.	By Chrono- meter.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Varia- tion.	Head by Compass.	Total Error.	Devia- tion.	Head by Compass.	Total Error.	Devia- tion.
th.	North.	West.	West.		Miles.										
′	° ′	° ′	° ′	°				° ′	° ′	°	° ′	° ′	°	° ′	° ′
55	27 52	32 36	32 30	N. 71 W.	5	Vble. S.E.	1	61 30	19 40W.	N. 23 E.	5 4W.	14 36 E.	N. 34 E.	16 4W.	3 36 E.
.	..	..	..	..	..	..	..	..	..	N. 16 E.	4 7W.	15 33 E.	N. 28 E.	16 17W.	3 23 E.
.	..	..	..	..	..	..	..	..	..	N. 20 E.	5 29W.	14 11 E.	N. 32 E.	15 29W.	4 11 E.
43	28 48	..	32 23	..	..	S.W.	2	61 30	20 0W.	N. 58 E.	11 4W.	8 56 E.	N. 61 E.	14 4W.	5 56 E.
45	30 51	31 57	31 41	S. 66 W.	15	S.W. by S.	7	62 30	21 15W.	N. 13 E.	9 1W.	12 14 E.	N. 27 E.	23 1W.	5 46W.
10	33 36	31 13	31 15	S. 6 E.	16	S.W. by S.	8	64 30	22 45W.	N. 17 E.	9 44W.	13 1 E.	N. 28 E.	20 44W.	2 1 E.
42	34 58	30 18	30 17	S. 2 W.	16	W.N.W.	5	66 0	23 45W.	N. 28 E.	8 4W.	15 41 E.	N. 38 E.	18 4W.	5 41 E.
.	..	..	..	..	..	..	..	..	..	N. 28 E.	5 30W.	17 15 E.	N. 40 E.	17 30W.	6 15 E.
ble lt.															
36	36 32	29 12	29 15	N. 28 E.	5	S.W. by W.	4 to 7	66 30	24 45W.	N. 32 E.	7 22W.	17 23 E.	N. 45 E.	20 22W.	4 23 E.
.	..	..	..	..	..	..	..	..	..	N. 43 E.	10 22W.	14 23 E.	N. 57 E.	24 22W.	0 23 E.
.	38 13	..	27 45	..	..	S.W. Northerly	8 to 10 5 to 7	67 0	26 0W.	..	..	..	W. by N.	22 0W.	4 0 E.
59	39 2	25 54	26 0	S. 57 E.	6	N. by W.	5 to 6	..	..	..	..	..	..	..	..
5	40 0	24 16	24 44	N. 77 E.	22	N.Westly	3	..	..	..	..	..	..	..	..
.	40 54	23 23	23 30	..	..	Westerly	4	67 30	26 30W.	N. 39 E.	11 12W.	15 18 E.	N. 54 E.	26 12W.	0 18 E.
.	..	..	..	..	..	..	..	..	..	N. 56 E.	14 12W.	12 18 E.	N. 68 E.	26 12W.	0 18 E.
.	42 41	..	21 56	..	..	South S.W. North	6 to 3	68 0	27 15W.	N. 45 E.	15 37W.	11 38 E.	N. 60 E.	20 37W.	6 38 E.
32	44 2	20 27	20 58	..	..	Southerly	2	..	..	..	..	..	..	..	..
34	45 6	18 18	18 31	N. 18 E.	29	S.W.	7	..	..	..	..	..	..	..	..
52	47 42	..	14 51	..	..	S.W. by W.	8 5	..	..	..	..	..	..	..	..
10	49 22	12 22	12 43	..	..	West	4	..	..	..	..	..	..	..	..
.	50 38	8 42	9 24	..	..	S.W. by W.	5	..	..	..	.	..	..	..	..
20	52 28	..	5 54	..	..	S.W.	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	Calm Easterly	..	..	..	..	..	..	..	..	..

the Outward voyage, besides general cargo, there were about 200 tons of iron on board in the shape of hoop and rod iron and machinery. In the llowing voyage, outward, there were 260 tons of iron of the same description.

SECOND VOYAGE. LIVERPOOL TO COLOMBO.

24	41 27	12 41	13 13	..	..	N.E.	4	North. 65 30	24 0W.	S. 54 W.	23 37W.	0 23 E.	S. 56 W.	25 37W.	1 37W.
..	..	..	..	..	..	..	..	..	..	S. 80 W.	22 37W.	1 23 E.	West	32 37W.	8 37W.
52	38 53	14 25	14 34	S. 82 E.	7	N.E. by E.	4	..	..	..	..	..	..	..	..
41	36 44	15 56	15 51	S. 53 W.	5	„	3	..	..	..	..	..	..	..	..
47	34 55	..	16 54	..	..	E. by N.	3	..	..	..	..	..	..	..	..
44	32 38	18 29	18 2	N. 75 W.	23	E. variable S.S.E.	3 4	61 30	23 40W.	S. 46 W.	24 0W.	0 20W.	S. 51 W.	29 0W.	5 20W.
..	..	..	..	..	..	..	..	..	..	S. 17 W.	25 0W.	1 20W.	S. 14 W.	22 0W.	1 40 E.
0	30 32	20 41	20 19	N. 35 W.	34	Variable S.	4	61 0	22 0W.	S. 88 W.	22 16W.	0 16W.	N. 79 W.	35 16W.	13 16W.
..	..	..	..	..	..	..	..	..	..	N. 30 W.	17 46W.	4 14E.	N. 17 W.	30 46W.	8 46W.
30	29 28	21 46	21 36	N. 77 W.	9	N.E.	8	60 0	21 45W.	S. 45 W.	24 0W.	2 15W.	S. 43 W.	27 0W.	5 15W.
..	..	..	..	..	..	..	..	..	..	South	29 39W.	7 45W.	S. 5 E.	24 39W.	2 45W.
29	26 29	23 5	22 52	West	11	N.E.	5	57 0	20 40W.	S. 41 W.	22 33W.	1 53W.	S. 45 W.	26 33W.	5 53W.
..	..	..	..	..	..	..	..	..	..	S. 85 W.	20 0W.	0 40 E.	N. 85 W.	31 0W.	10 20W.
54	23 59	24 20	24 57	S. 76 W.	21	East	4	55 30	20 W.	S. 41 W.	22 27W.	2 27W.	S. 44 W.	25 27W.	5 27W.
36	21 36	25 29	25 8	West	20	E.S.E.	2 to 4	..	..	..	..	..	..	..	..
37	19 31	26 30	26 14	N. 68 W.	16·5	E.N.E.	4	51 30	17 40W.	S. 44 W.	19 11W	1 31W.	S. 48 W.	23 11W.	5 31W.
..	..	..	..	..	..	..	..	..	..	S. 25 W.	20 11W.	2 31W.	S. 23 W.	18 11W.	0 31W.
..	..	..	..	..	..	..	..	..	..	S. 5 W.	23 23W.	5 43W.	South	18 23W.	0 43W.
..	..	..	..	..	..	..	..	..	..	S. 37 W.	18 23W.	0 43W.	S. 39 W.	20 23W.	2 43W.
..	..	..	..	..	..	..	..	..	..	S. 36 W.	18 46W.	1 6W.	S. 38 W.	20 46W.	3 6W.
..	..	..	..	..	..	..	..	..	..	S. 60 W.	17 46W.	0 6W.	S. 67 W.	24 46W.	7 6W.
6 37	17 2	27 4	26 50	S. 30 W.	28	E. by N.	4	47 30	17 0W.	S. 25 W.	20 30W.	3 30W.	S. 24 W.	19 30W.	2 30W.
..	..	..	..	..	..	..	..	..	..	S. 8 W.	23 0W.	6 0W.	S. 1 W.	16 0W.	1 0 E.

Iron Ship "Advance," Captain Dalison, Second Voyage, Liverpool to Colombo—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	D t
1856.	° ′	° ′	° ′	° ′	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′	°
May 21	North. 13 25	North. 13 27	West. 26 24	West. 26 6	S. 84 W.	18	E. by N.	4	42 30	16 15W.	S. 4 W.	22 9 W.	5 54W.	South	18 9	1
	..	..	..	..	..	..	..	..	..	..	S. 15 E.	24 9 W.	7 54W.	S. 21 E.	18 9	1
22	11 4	11 0	25 16	25 11	S. 37 W.	8	East	3	40 0	16 0W.	S. 6 E.	25 12 W.	9 12W.	S. 12 E.	19 12	3
23	9 15	9 13	24 22	24 14	S. 75 W.	8	..	2	..	..	..	..	..	..	..	
24	6 48	7 10	23 21	23 21	South	22	E. by S.	3	..	..	..	..	..	..	..	
25	4 44	4 54	23 15	22 50	S. 68 W.	27	Variable E.	3	30 0	16 30W.	S. 4 W.	21 45 W.	5 15W.	South	17 45	
26	..	3 8	..	23 44	..	..	Calm and Squally S.E. by S.	5	..	..	..	..	..	..	..	
27	1 11	1 4	25 9	25 0	N. 40 W.	11	S. by E.	5	25 30	15 30W.	S. 45 W.	16 34 W.	1 4W.	S. 52 W.	23 34	
	South. 0 28	South. 0 34	27 30	26 44	N. 83 W.	47	S. by E.	4	23 0	13 15W.	S. 58 W.	14 20 W.	1 5W.	S. 67 W.	23 20	1
	..	..	..	..	..	..	..	..	..	..	S. 82 W.	14 20 W.	1 5W.	N. 87 W.	25 20	1
	2 14	2 24	28 42	28 29	N. 51 W.	17	S.S.E.	3	22 0	13 30W.	S. 42 W.	13 38 W.	0 8W.	S. 49 W.	20 38	
	..	..	..	..	..	..	..	..	..	..	S. 32 W.	14 17 W.	0 47W.	S. 33 W.	15 17	
30	3 54	3 50	29 50	29 10	S. 84 W.	39	S.E. by S.	2 to 4	18 30	12 30W.	S. 41 W.	13 21 W.	0 51W.	S. 45 W.	17 21	
31	6 36	6 25	30 50	30 26	S. 65 W.	27	S.E.	4	16 0	11 30W.	S. 9 W.	15 6 W.	3 36W.	S. 5 W.	11 6	
June 1	9 9	9 3	31 28	31 8	S. 73 W.	21	S.E.	4	11 0	10 45W.	S. 17 W.	14 22 W.	3 37W.	S. 14 W.	11 22	
2	11 44	11 27	31 46	31 46	South	27	S.E. by E.	4	6 0	10 30W.	S. 16 W.	11 12 W.	0 42W.	S. 12 W.	10 12	
	..	..	..	..	..	..	..	..	..	..	S. 40 W.	12 0 W.	1 30W.	S. 46 W.	18 0	
3	14 12	13 54	32 7	31 59	S. 22 W.	20	Vble. S.E.	3	+ 1 0	9 45W.	S. 19 W.	13 7 W.	3 22W.	S. 17 W.	10 47	
	..	..	..	..	..	..	..	..	..	..	S. 25 W.	12 0 W.	2 15W.	S. 25 W.	12 0	
	..	..	..	..	..	..	..	..	..	..	S. 39 W.	11 30 W.	1 45W.	S. 45 W.	17 30	
	..	..	..	..	..	..	..	..	..	..	S. 56 W.	11 0 W.	1 15W.	S. 67 W.	22 0	
	..	..	..	..	..	..	..	..	..	..	S. 75 W.	11 0 W.	1 15W.	West	26 0	
	..	..	..	..	..	..	..	..	..	..	N. 79 W.	11 0 W.	1 15W.	N. 62 W.	28 0	
4	16 13	16 0	32 16	32 6	S. 35 W.	16	S.E. by E.	2	..	..	..	..	..	..	..	
5	17 13	17 5	32 21	32 11	S. 50 W.	13	E.S.E.	1	− 3 0	8 45W.	S. 3 E.	15 37 W.	6 52W.	S. 14 E.	4 37 W.	
6	18 15	18 15	31 57	31 51	West	5	N.E.	1	− 5 0	9 0W.	S. 30 E.	17 24 W.	8 24W.	S. 46 E.	1 24 W.	
	..	..	..	..	..	..	..	..	..	..	S. 11 E.	16 24 W.	7 24W.	S. 22 E.	5 24 W.	
	..	..	..	..	..	..	..	..	..	..	S. 6 E.	14 54 W.	5 54W.	South	8 54 W.	
7	19 17	19 18	31 7	30 52	N. 87 W.	16	Vble. W.	2	− 7 0	9 30W.	S. 48 E.	17 11 W.	7 41W.	S. 68 W.	2 49 E.	
	..	..	..	..	..	..	..	..	..	..	S. 60 E.	16 41 W.	7 1W.	S. 79 E.	2 19 E.	
	..	..	..	..	..	..	..	..	..	..	S. 75 E.	14 11 W.	4 41W.	East	0 49 E.	
8	19 23	19 37	30 15	30 31	..	..	Calm S.S.W.	0 2	..	..	..	..	..	..	..	
9	19 55	20 2	28 28	28 51	..	..	S. by E.	3	− 9 0	10 40W.	S. 72 E.	16 0 W.	5 20W.	N. 89 E.	3 0 E.	
10	21 36	21 38	29 26	29 9	N. 84 W.	16	S.E. by S.	4	−11 30	10 0W.	S. 15 W.	22 24 W.	12 24W.	S. 11 W.	18 24 W	
	..	..	..	..	..	..	S.E. by S.	..	..	..	S. 38 W.	20 54 W.	10 54W.	S. 45 W.	28 54 W	
	..	..	..	..	..	..	..	..	..	..	S. 8 E.	18 0 W.	8 0W.	S. 21 E.	5 0 W	
11	23 37	23 31	28 35	28 28	S. 45 W.	8	E.N.E.	4	−15 30	10 0W.	S. 46 E.	18 12 W.	8 12W.	S. 67 E.	2 48 E	
	..	..	..	..	..	..	..	..	..	..	S. 26 E.	18 42 W.	8 42W.	S. 44 E.	0 42 W	
	..	..	..	..	..	..	..	..	..	..	S. 9 E.	18 49 W.	8 49W.	S. 22 E.	5 49 W	
	..	23 0	..	28 52	..	..	..	..	..	..	S. 5 W.	17 19 W.	7 19W.	South	12 19 W	
	..	..	..	..	..	..	..	..	..	..	S. 20 W.	15 49 W.	5 49W.	S. 21 W.	16 49 W	
	..	..	..	..	..	..	..	..	..	..	S. 37 W.	14 19 W.	4 19W.	S. 45 W.	22 19 W	
	..	..	..	..	..	..	..	..	..	..	S. 55 W.	13 19 W.	3 19W.	S. 70 W.	28 19 W	
12	25 50	25 56	26 1	26 11	N. 54 E.	11	N.N.W. N.W. S.W.byW.	5	−21 0	11 0W.	S. 40 E.	18 0 W.	7 0W.	S. 59 E.	1 0 E	
13	27 29	27 38	22 51	23 17	N. 68 E.	25	S.W.	5	..	..	..	..	..	..	..	
14	29 26	29 42	19 6	19 30	..	..	S.W. by W.	8 to 11	..	..	..	..	..	..	..	
15	31 7	31 9	15 56	16 3	N. 74 E.	7	W. by S.	9	..	..	..	..	..	..	..	
16	32 49	32 40	13 0	12 59	S. 84 E.	9	W.N.W.	6 to 8	−32 0	17 30W.	S. 22 E.	30 46 W.	13 16W.	S. 51 E.	1 46 W	
17	33 48	33 38	11 1	10 25	..	..	N.W. S.	2 3	..	..	..	..	..	..	..	
18	33 17	33 13	8 37	8 45	N. 58 E.	8	S.E. by S.	7	..	..	..	..	..	..	..	
19	32 43	32 43	6 17	6 51	..	28	S.E.	6	..	..	..	..	..	..	..	
20	33 2	33 8	3 41	3 48	N. 50 E.	9	..	..	..	..	..	..	..	..	..	

Iron Ship "Advance," Captain Dalison, Second Voyage, Liverpool to Colombo—*continued.*

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
South.	South.	West.	West.	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′	° ′
34 38	34 32	0 12	0 13	S. 12 E.	6	S.S.W.	6	−42 30	24 0W.	S. 24 E.	34 10 W.	10 10W.	S. 59 E.	0 50 E.	24 50 E.
		East.	East.												
36 17	36 17	..	2 54	..	..	S.W. by S.	5	..	..	..	..	..	..	..	..
37 50	37 51	6 53	6 11	N. 88 E.	30	West	4	−49 30	25 45W	S. 19 E.	36 21 W.	10 36W.	S. 56 E.	0 39 E.	26 24 E.
40 56	41 1	10 42	10 58	N. 49 W.	17	S.W.	8 to 10	..	..	..	..	..	..	..	..
41 1	40 3	15 15	14 46	N. 85 E.	23	S.W. by S.	6 to 7	..	..	..	..	..	..	..	..
41 4	40 51	20 2	19 38	S. 56 E.	20	S.W. by S.	6 to 7 & 9	−56 30	30 15W.	S. 32 E.	41 24 W.	11 9W.	S. 84 E.	10 36 E.	40 51 E.
40 56	41 1	24 58	24 51	N. 44 E.	7	S.W. by W.	8 to 11	..	..	..	..	..	..	..	..
40 29	40 39	..	29 30	..	..	S.W. by S.	4	..	..	..	..	..	..	..	..
40 5	40 27	31 31	31 53	N. 37 W.	28	Vble. Sq.	4 to 1	−60 0	31 15W.	S. 52 E.	36 36 W.	5 21W.	N. 77 E.	17 24 E.	48 39 E.
..	..	..	..	..	..	..	..	..	..	S. 82 E.	30 36 W.	0 39 E.	N. 55 E.	12 24 E.	43 39 E.
..	..	..	..	..	..	..	..	..	..	N. 77 E.	26 36 W.	4 39 E.	N. 45 E.	5 24 E.	36 39 E.
40 21	40 21	..	34 27	..	..	Ve.W.N.W. S. by E.	3 to 6 1 to 11	..	..	..	..	..	..	..	..
40 10	40 14	37 11	37 15	..	..	North	5 to 6	..	..	..	..	..	..	..	..
39 59	40 4	41 0	41 27	..	..	South	5	..	..	..	..	..	..	..	..
39 54	39 50	45 37	45 23	..	..	S.W. by W.	6	..	..	..	..	..	..	..	..
39 39	39 36	49 57	49 23	..	..	W.S.W.	5	..	..	..	..	..	..	..	..
38 48	38 34	57 1	57 1	..	..	S.W. by W.	4	−65 0	25 0W.	S. 64 E.	35 W.	10 0W.	N. 61 E.	22 0 E.	47 0 E.
..	..	..	..	..	..	..	..	..	..	S. 89 E.	35 W.	10 0W.	N. 50 E.	4 0 W.	21 0 E.
..	..	..	..	..	..	..	..	..	..	S. 78 E.	35 38 W.	10 38W.	N. 55 E.	11 32 E.	36 32 E.
38 6	37 50	6 58	60 45	..	..	South N.N.W.	4 8	..	..	..	..	..	..	..	..
36 55	36 46	65 32	65 1	..	..	S.W. by S. W.S.W.	9 11	..	..	..	..	..	..	..	..
34 35	34 37	67 15	67 50	..	..	W. by S. W.N.W.	6 to 3	..	..	..	..	..	..	..	..
32 45	32 38	69 3	68 30	..	..	N.Wly.	3	−63 0	16 15W.	N. 21 E.	9 0 W.	7 15 E.	N. 17 E.	5 0 W.	11 15 E.
31 31	31 29	71 38	71 56	..	..	N.N.W.	6	..	..	..	..	..	N. 43 E.	21 38 E.	37 53 E.
28 48	28 47	72 53	72 47	S. 79 W.	5	N.W. by W. S.S.W.	6	−61 0	12 0W.	N. 7 E.	4 27 W.	7 33 E	N. 10 E.	8 27 W.	3 33 E.
27 4	27 5	73 7	72 51	N. 86 E.	16	Vble. S.S.W. to S.S.E.	2	..	..	..	..	..	..	..	..
26 3	25 51	73 24	73 3	S. 53 E.	20	Vble. Sly.	2	..	..	..	..	..	..	..	..
23 1	23 8	73 14	73 24	N. 53 W.	12	S.E. by S. S.E. by E.	4 4 to 6	−56 0	8 0W.	N. 2 E.	3 38 W.	4 22 E.	N. 5 E.	5 22 W.	2 38 E.
19 46	19 53	72 51	73 7	N. 61 W.	14	E. by S.	6	..	..	..	..	..	..	..	..
17 0	17 0	72 52	72 57	East	1	E. by N.	5 to 6	−51 0	4 0W.	N. 3 W.	0 52 W.	3 8 E.	N. 3 E.	6 52 W.	2 52W.
14 16	14 22	72 48	72 51	N. 26 W.	7	E. by S.	5	..	..	..	..	..	..	..	..
11 7	11 20	72 54	73 2	N. 68 W.	9	E.S.E.	5	..	..	..	..	..	..	..	..
8 20	8 43	73 49	74 7	N. 40 W.	27	E. by S.	5	−35 0	1 50W.	N. 27 E.	3 43 E.	5 33 E.	N. 22 30 E.	8 13 E.	10 23 E.
..	..	..	..	..	..	..	..	..	..	N. 15 E.	2 43 E.	4 33 E.	N. 15 E.	2 43 E.	4 33 E.
..	..	..	..	..	..	..	..	..	..	N. 8 E.	3 55 E.	5 45 E.	N. 11 E.	0 55 E.	2 45 E.
..	..	..	..	..	..	..	..	..	..	North	3 55 E.	5 45 E.	N. 5 E.	1 5 W.	0 45 E.
..	..	..	..	..	..	..	..	..	..	N. 10 W.	3 40 E.	5 30 E.	North	3 20 W.	1 30W.
5 17	5 11	71 15	74 17	S. 2 W.	6	S.E. by E.	5	−29 0	1 20W.	N. 7 E.	4 11 E.	5 31 E.	N. 8 E.	3 11 E.	4 31 E.
..	..	..	..	..	..	..	..	..	..	N. 6 W.	3 11 E.	4 31 E.	North	2 49 W.	1 29W.
..	..	..	..	..	..	..	..	..	..	N. 13 W.	..	..	N. 5 W.	5 35 W.	4 15W.
..	..	..	..	..	..	..	..	..	..	N. 21 W.	2 0 E.	3 20 E.	N. 11 W.	8 0 W.	6 40W.
..	..	..	..	..	..	..	..	..	..	N. 31 W.	..	..	N. 17 W.	12 23 W.	11 3W.
..	..	..	..	..	..	..	..	..	..	N. 37 W.	1 15 E.	2 35 E.	N. 23 W.	12 45 W.	11 25W.
..	..	..	..	..	..	..	..	..	..	N. 43 W.	..	..	N. 28 W.	14 15 W.	12 55W.
..	..	..	..	..	..	..	..	..	..	N. 50 W.	0 15 E.	1 35 E.	N. 32 30 W.	16 15 W.	14 55W.
2 22	2 37	74 36	74 40	N. 15 W.	16	S.E. by S. S.S E.	5 4	−25 0	1 0W.	North	4 49 E.	5 49 E.	N. 5 E.	0 11 W.	0 49 E.
..	..	..	..	..	..	..	..	..	..	N. 9 E.	4 49 E.	5 49 E.	N. 11 E.	2 49 E.	3 49 E.
..	..	..	..	..	..	..	..	..	..	N. 16 E.	4 49 E.	5 49 E.	N. 17 E.	3 49 E.	4 49 E.
..	..	..	..	..	..	..	..	..	..	N. 26 E.	4 49 E.	5 49 E.	N. 22 E.	8 49 E.	9 49 E.
..	..	..	..	..	..	..	..	..	..	N. 35 E.	4 19 E.	5 19 E.	N. 28 E.	11 19 E.	12 19 E.
..	..	..	..	..	..	..	..	..	..	N. 45 E.	3 49 E.	4 49 E.	N. 34 E.	14 49 E.	15 49 E.

Iron Ship "Advance," Captain Dalison, Second Voyage, Liverpool to Colombo—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated)	
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.
1856.	South.	South.	East.	East.	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′
July 22	..	..	..	..	..	..	..	..	..	..	? N. 51 W.	0 4 E.	1 4 E.	? N. 34 W.	?16 56 W.
	..	..	..	..	..	..	..	..	..	..	? N. 69 W.	0 4 E.	1 4 E.	? N. 47 W.	?21 56 W.
23	0 11	0 35	75 7	74 53	N. 59 E.	28	S. by W.	3	−20 0	0 40 W.	N. 2 E.	3 54 E.	4 34 E.	N. 7 E.	1 6 W.
24	North. 2 26	North. 2 6	76 26	75 51	N. 61 E.	40	S.W. by W.	4	..	..	..	..	..	..	..
25	4 56	5 9	77 59	77 25	S. 57 E.	28	W.	4	..	..	..	..	..	..	..
26	6 37	6 52	79 2	78 50	..	..	S.W.	3	..	..	..	..	..	..	..

HOMEWARD VOYAGE.

Sept. 10	North. 7 11	North. ..	East. 79 25	East. ..	..	..	W.S.W.	6	− 6 0	0 20 E.	S. 5 E.	3 49 E.	3 29 E.	S. 10 E.	1 11 E.
11	5 35	5 35	80 9	80 0	..	..	W. by S.	7	..	..	..	..	..	..	..
12	..	3 47	..	82 20	..	..	S.W. by W.	5 to 7	..	..	..	..	..	..	..
13	1 57	2 0	85 11	84 27	..	..	S.W. by S.	4	−14 0	0 30 E.	S. 43 E.	4 10 W.	4 40 W.	S. 61 E.	13 50 E.
14	0 41	0 31	87 13	87 7	N. 31 E.	12	S.W. by S.	4	..	..	..	..	..	..	..
15	South. ..	South. 0 9	88 23	88 20	..	..	Vble. S.W.	3	..	..	..	..	..	..	..
16	1 12	1 6	89 13	89 20	S. 49 W.	9	Vble. S.W.	5 to 2	..	..	..	..	..	..	..
17	2 35	2 35	90 3	89 40	East	22	Variable Southerly	5	..	..	..	..	..	..	..
18	3 7	3 25	90 51	90 30	N. 48 E.	28	Vble. S.W.	5 to 6	..	..	..	..	..	..	..
19	..	4 31	91 36	91 23	..	..	Variable W.S.W.	4	..	..	..	..	..	..	..
20	6 5	6 42	91 36	91 11	S. 47 E.	25	W.S.W. N.W.	3	..	..	..	..	..	..	..
21	6 36	6 40	91 36	91 28	N. 63 E.	9	Vble. N.W. Calms	1	−27 30	0 15 E.	S. 41 W.	..	..	S. 56 W.	15 40 W.
	..	..	..	..	..	..	..	..	..	..	S. 33 W.	1 24 W.	1 39 W.	S. 44 W.	12 24 W.
	..	..	..	..	..	..	..	..	..	..	S. 24 W.	..	..	S. 33 W.	10 9 W.
	..	..	..	..	..	..	..	..	..	..	S. 20 W.	1 54 W.	2 9 W.	S. 22 W.	3 56 W.
	..	..	..	..	..	..	..	..	..	..	S. 10 W.	..	..	S. 12 W.	4 9 W.
	..	..	..	..	..	..	..	..	..	..	S. 1 W.	2 24 W.	2 39 W.	South	1 24 E.
22	6 36	6 53	91 36	91 16	N. 47 E.	25	Calms	0	−27 30	0 15 E.	N. 76 W.	1 0 W.	1 15 W.	N. 53 W.	24 0 W.
23	..	6 56	..	91 16	..	..	S. by .	6	..	..	..	..	..	..	..
24	7 28	7 38	88 23	88 47	..	..	S. by E.	4	−31 30	1 0 W	S. 47 W.	1 55 W.	0 55 W.	N. 80 W.	27 55 W.
	..	..	..	..	..	..	..	..	..	..	S. 65 W.	1 55 W.	0 55 W.	West	36 55 W.
25	8 45	..	85 39	..	..	..	S.S.E.	3	−34 0	0 45 W.	S. 67 W.	1 11 W.	0 26 W.	West	34 11 W.
	..	..	..	..	..	..	..	..	..	..	S. 78 W.	1 51 W.	1 6 W.	N. 78 W.	25 51 W.
26	9 46	9 49	83 10	83 13	N. 42 W.	41	S.S.E.	5	..	..	..	..	..	..	..
27	10 59	10 50	80 5	80 7	S. 13 E.	9	South	6 to 7	..	..	..	..	..	..	..
28	12 12	12 15	77 4	77 11	N. 66 W.	7	South	6	..	..	..	..	..	..	..
29	..	12 53	75 12	75 15	..	..	Calm	0	..	..	..	..	..	..	..
30	14 4	14 1	72 46	72 57	S. 76 W.	12	S. by E.	6	..	..	..	..	..	..	..
Oct. 1	15 46	15 42	64 29	69 56	S. 86 W.	29	S.S.E.	7	..	..	..	..	..	..	..
2	17 33	17 21	66 46	66 36	S. 39 E.	16	S.E. by S.	6	..	..	..	..	..	..	..
3	19 11	18 43	63 12	63 33	S. 36 W.	35	S.E. by S.	4	−52 30	7 0 W.	S. 64 W.	11 33 W.	4 33 W.	N. 82 W.	45 33 W
	..	..	..	..	..	..	..	..	..	..	S. 75 W.	11 14 W.	4 14 W.	N. 69 W.	47 14 W
4	19 58	20 8	60 22	60 30	N. 37 W.	13	S.E.	4	−53 0	8 30 W.	N. 85 W.	11 44 W.	3 14 W.	N. 53 W.	43 44 W
	..	..	..	..	..	..	..	..	..	..	S. 83 W.	..	..	N. 60 W.	48 44 W
Nov. 5	SAILED FROM PORT LEWIS.														
6	20 20	..	56 43	..	..	..	Easterly.	2	−53 0	10 30 W.	N. 83 W.	13 33 W.	3 3 W.	N. 53 W.	43 33 W
	..	..	..	..	..	..	..	..	..	..	S. 79 W.	13 33 W.	3 3 W.	N. 68 W.	46 33 W
	..	..	..	..	..	..	..	..	..	..	S. 62 W.	..	..	N. 84 W.	47 33 W
	..	..	..	..	..	..	..	..	..	..	S. 55 W.	..	..	West	48 33 W
	..	..	..	..	..	..	..	..	..	..	S. 44 W.	..	..	S. 77 W.	45 33 W
7	20 39	20 34	..	55 27	..	..	E.N.E.	2	..	..	..	..	..	..	..
8	21 37	21 26	54 32	54 10	..	..	East	2	..	..	..	..	..	..	..
9	22 45	22 22	53 25	53 37	S. 27 W.	26	E. by S.	2	..	..	..	..	..	..	..

Iron Ship "Advance," Captain Dalison, Second Voyage, Homeward—*continued.*

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
° ′	° ′	° ′	° ′	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′	° ′
3 26	23 35	52 28	52 26	N. 20 W.	5	N.E.	3	..	..	..	..	..	..	..	..
24 34	24 28	..	50 40	..	..	S.S.E.	7	..	..	..	..	..	..	..	..
26 8	25 56	48 26	48 19	..	..	S.E. by S.	6	..	..	..	..	..	..	..	..
27 38	27 51	..	45 37	..	..	..	..	−57 30	20 0W.	S. 77 W.	23 20 W.	3 20W.	N. 65 W.	61 20 W.	41 20W.
..	..	..	..	..	..	..	..	..	..	West	23 21 W.	3 21W.	N. 56 W.	57 10 W.	37 10W.
28 49	28 19	43 38	43 41	..	..	S.W. by S.	2	−57 30	21 0W.	N. 84 W.	24 0 W.	3 0W.	N. 50 W.	58 0 W.	37 0W.
29 12	29 13	42 8	42 21	N. 85 W.	12	S.W. by W. S.Easterly	3 1	−57 30	23 0W.	S. 74 W.	24 40 W.	1 40W.	N. 67 W.	63 40 W.	40 40W.
..	..	..	..	..	..	..	..	..	..	West	24 40 W.	1 40W.	N. 56 W.	58 40 W.	35 40W.
..	..	..	..	..	..	..	..	..	..	N. 75 W.	25 10 W.	2 10W.	N. 45 W.	55 10 W.	32 10W.
..	..	..	..	..	..	..	..	..	..	N. 60 W.	25 10 W.	2 10W.	N. 35 W.	50 10 W.	27 10W.
29 45	29 37	40 47	40 57	S. 45 W.	11	E.N.E.	3	..	..	..	..	..	..	..	..
30 18	30 9	39 28	39 38	S. 45 W.	13	S.Easterly E.N.E.	1 3	..	..	..	..	..	..	..	..
30 52	30 55	37 46	36 59	N. 86 E.	43	N.Easterly W.S.W.	4 6	..	..	..	..	..	..	..	..
30 43	30 57	35 36	35 43	N. 25 W.	16	W.S.W.	6 to 1	..	..	..	..	..	..	..	..
31 38	31 31	33 57	33 36	N. 69 W.	20	E.N.E.	6	−57 0	27 0W.	S. 81 W.	27 43 W.	0 43W.	N. 60 W.	66 43 W.	39 43W
..	..	..	..	..	..	..	..	..	..	N. 81 W.	27 43 W.	0 43W.	N. 49 W.	59 43 W.	32 43W.
..	31 52	32 18	32 17	N. 6 E.	8	W.S.W.	4	..	..	..	..	..	..	..	..
32 57	32 50	30 32	30 39	..	..	E.S.E.	5	..	..	..	..	..	..	..	..
34 7	..	28 51	..	..	..	S.E. by E.	4	−57 0	29 30W.	S. 43 W.	30 32 W.	1 2W.	S. 81 W.	68 32 W.	39 2W.
..	..	..	..	..	..	..	..	..	..	S. 34 W.	30 32 W.	1 2W.	S. 68 W.	64 32 W.	35 2W.
..	..	..	..	..	..	..	..	..	..	S. 22 W.	30 28 W.	0 58W.	S. 45 W.	53 25 W.	23 55W.
..	..	..	..	..	..	..	..	..	..	S. 19 W.	30 25 W.	0 55W.	S. 41 W.	52 25 W.	22 55W.
33 58	33 51	27 23	27 31	S. 41 E.	9	Westerly	7	..	..	..	..	..	..	..	..
34 8	33 59	26 3	26 41	..	..	S.E.	5	−56 0	29 45W.	N. 88 W.	31 38 W.	1 53W.	N. 53 W.	66 38 W.	36 53W.
35 22	35 11	24 24	24 27	S. 16 W.	11	N.N.W.	4	−56 0	29 45W.	S. 60 W.	31 6 W.	1 21W.	N. 79 W.	72 6 W.	42 21W.
..	34 54	..	24 14	..	..	W.N.W.	11	..	..	..	..	..	..	..	..
34 59	..	23 26	..	..	..	W.N.W.	4	..	..	..	..	..	..	..	..
34 49	34 51	22 17	22 27	S. 77 W.	9	S.E.	5	−55 0	29 50W.	N. 88 W.	30 30 W.	0 40W.	N. 53 W.	65 30 W.	35 40W.
..	..	..	..	..	..	..	..	..	..	N. 70 W.	32 43 W.	2 53W.	N. 41 W.	61 53 W.	32 3W.
35 13	35 7	20 22	20 38	S. 66 W.	15	S.W. by S.	2	−54 30	29 50W.	N. 29 W.	31 56 W.	2 6W.	N. 61 W.	46 56 W.	17 6W.
34 49	34 48	19 27	19 27	S.	1	N.W.	3	..	..	..	..	..	..	..	..
34 33	34 47	18 14	18 29	N. 33 W.	17	S.S.W.	3	−52 30	29 30W.	West	31 17 W.	1 47W.	N. 55 W.	66 17 W.	36 47W.
Sunset	34 7	..	..	..	..	..	..	..	..	N. 40 W. N. 24 W.	29 30 W. 29 0 W.	0 0 0 30 E.	N. 21 W. N. 11 W.	48 30 W. 42 0 W.	19 0W. 12 30W.
..	..	..	..	..	..	..	..	..	..	N. 9 W.	27 0 W.	2 30 E.	North	36 0 W.	6 30W.
32 35	32 48	15 11	15 28	N. 43 W.	19	South	6 to 7	−50 0	29 15W.	N. 42 W.	30 15 W.	1 0W.	N. 11 W.	43 15 W.	14 0W.
..	..	..	..	..	..	S.S.W.	3	..	..	N. 13 W.	28 31 W.	0 44 E.	N. 4 W.	37 31 W.	8 16W.
30 57	31 4	13 8	13 16	N. 45 W.	20	S.S.W.	2	−49 0	28 40W.	N. 29 E.	24 15 E.	4 25 E.	N. 22 E.	15 45 W.	12 55 E.
..	..	..	..	..	..	..	..	..	..	N. 11 E.	25 15 W.	3 25 E.	N. 11 E.	25 15 W.	3 25 E.
..	..	..	..	..	..	..	..	..	..	N 6 30 W.	26 15 W.	2 25 E.	North	32 45 W.	4 5W.
30 4	30 9	12 0	12 6	N. 46 W.	7	Vble. S.	1	..	..	..	..	..	..	..	..
28 33	28 41	10 14	10 23	N. 48 W.	12	Variable Southerly	3	..	..	..	..	..	..	..	..
26 55	27 7	8 32	8 24	N. 31 W.	14	S. by E.	4	−41 30	27 30W.	N. 20 W.	27 5 W.	0 25 E.	N. 10 W.	37 5 W.	9 35W.
25 34	25 28	6 38	6 45	S. 47 W.	9	South	3	..	..	..	..	..	..	..	..
24 18	24 22	5 5	5 9	N. 45 W.	6	S.S.W.	3	..	..	..	..	..	..	..	..
23 3	22 57	3 20	3 28	S. 51 W.	10	South	4	−33 0	26 30W.	N. 83 W.	28 10 W.	1 40W.	N. 57 W.	54 10 W.	27 40W.
..	..	..	..	..	..	..	..	..	..	N. 70 W.	28 10 W.	1 40W.	N. 45 W.	53 10 W.	26 40W.
..	..	..	..	..	..	..	..	..	..	N. 55 W.	28 18 W.	1 48W.	N. 34 W.	49 18 W.	22 48W.
..	..	..	..	..	..	..	..	..	..	N. 38 W.	28 18 W.	1 48W.	N. 22 W.	44 18 W.	17 48W.
..	23 20	..	3 38	..	..	..	..	..	..	N. 21 W.	28 4 W.	1 34W.	N. 11 W.	38 4 W.	11 34W.
..	..	..	..	..	..	..	..	..	..	N. 13 W.	28 41 W.	1 34W.	N. 5 W.	36 4 W.	9 34W.
..	..	..	..	..	..	..	..	..	..	N. 7 W.	26 12 W.	0 18 E.	North	33 12 W.	6 42W.
..	..	..	..	..	..	..	..	..	..	North	25 32 W.	0 58 E.	N. 5 E.	30 32 W.	4 2W.

Iron Ship "Advance," Captain Dalison, Second Voyage, Homeward—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).	
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.
1856. Dec.	° ′ South.	° ′ South.	° ′ East.	° ′ East.	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′
10	..	..	..	..	..	..	..	..	..	..	N. 8 E.	24 52 W.	1 38 E.	N. 10 E.	26 52 W.
	..	..	..	..	..	..	..	..	..	..	N. 28 E.	22 28 W.	4 2 E.	N. 24 E.	19 28 W.
11	21 46	21 46	1 41	1 40	..	..	S.S.E.	4	..	..	..	..	..	..	..
12	20 33	20 25	0 2	0 15	S. 56 W.	14	S. by E.	4	..	..	..	..	..	..	..
13	19 14	19 15	West. ..	West. 1 30	S. 80 W.	13	S. by E.	4 to 5	..	..	..	..	..	..	..
14	17 55	17 57	3 14	3 1			S. by E.	4	..	..	..	..	..	..	..
15	..	16 33	4 54	4 49	..	..	S.S.E.	4	..	..	..	..	..	..	..
16	..	..	..	..	..	..	S.S.E.	4	..	..	..	..	..	..	..
17	..	..	..	..	..	..	S.S.E.	4	..	..	..	..	..	..	..
18	14 0	14 1	7 33	7 31	..	..	S.S.E.	5	..	..	..	..	..	..	..
19	12 22	12 33	9 21	9 0	..	14	S.S.E.	5	..	..	..	..	..	..	..
20	10 30	10 34	11 15	11 23	N. 63 E.	9	S.E. by S.	5	− 2 0	22 0W.	N. 20 W.	20 0 W.	2 0 E.	N. 11 W.	29 0 W.
	..	..	..	..	..	..	..	..	..	..	N. 6 W.	19 0 W.	3 0 E.	North	25 0 W.
21	8 41	8 41	12 58	13 0	East	4	S.E. by S.	4 5	..	..	..	..	..	..	..
22	6 58	7 4	14 32	14 38	N. 45 E.	9	S.S.E.	4	+ 5 30	21 0W.	N. 8 E.	15 W.	6 0 E.	N. 11 E.	18 0 W.
	..	..	..	..	..	..	..	..	..	..	N. 6 W.	16 W.	5 0 E.	North	21 0 W.
	..	..	..	..	..	..	..	..	..	..	N. 20 W.	17 W.	4 0 E.	N. 11 W.	26 0 W.
	..	..	..	..	..	..	..	..	..	..	N. 35 W.	17 24 W.	3 36 E.	N. 24 W.	28 24 W.
	..	..	..	..	..	..	..	..	..	..	N. 47 W.	22 30 W.	1 30 W.	N. 33 W.	36 30 W.
	..	..	..	..	..	..	..	..	..	..	N. 60·5 W.	21 50 W.	0 50 W.	N. 45 W.	47 20 W.
	..	..	..	..	..	..	..	..	..	..	N. 73 W.	21 40 W.	0 40 W.	N. 56 W.	38 40 W.
	..	6 30	..	..	..	..	..	..	..	..	N. 15 W.	amp. 19 30 W.	1 30 E.	N. 6 W.	28 30 W.
	..	..	..	..	..	..	..	..	..	..	N. 33 W.	20 0 W.	1 0 E.	N. 22 W.	31 0 W.
23	5 15	5 22	15 20	15 38	N. by E.	19	S. by E.	3	9 0	20 20W.	N. 40 E.	15 55 W.	4 25 E.	N. 35 E.	10 55 W.
	..	..	..	..	..	..	..	..	..	..	N. 23 E.	14 55 W.	5 25 E.	N. 22 E.	13 55 W.
	..	..	..	..	..	..	..	..	..	..	N. 8 E.	14 33 W.	5 47 E.	N. 10 E.	16 33 W.
	..	..	..	..	..	..	..	..	..	..	N. 6 W.	15 23 W.	5 57 E.	North	21 23 W.
	..	..	..	..	..	..	..	..	..	..	N. 20 W.	17 20 W.	3 0 E.	N. 11 W.	26 20 W.
	..	..	..	..	..	..	..	..	..	..	N. 33 W.	19 50 W.	0 30 E.	N. 22 W.	30 50 W.
	..	..	..	..	..	..	..	..	..	..	N. 48 W.	20 14 W.	0 6 E.	N. 33 W.	35 14 W.
	..	..	..	..	..	..	..	..	..	..	N. 62 W.	21 14 W.	0 54 W.	N. 45 W.	38 14 W.
	..	..	..	..	..	..	..	..	..	..	N. 68 W.	21 44 W.	1 24 W.	N. 50 W.	39 44 W.
24	3 41	3 49	17 5	16 43	N. 69 W.	23	S. by E.	3	12 30	19 30W.	N. 11 W.	18 27 W.	1 3 W.	N. 5 W.	24 27 W.
25	2 18	2 22	18 21	18 0	N. 78 W.	21	S. by E.	3	..	..	..	..	..	..	..
26	1 4	0 58	19 28	19 2	S. 77 W.	27	S. by E.	3	..	..	..	..	..	..	..
27	North. 0 46	North. 0 56	20 17	19 32	S. 83 W.	45	S. by E.	3	22 0	17 30W.	N. 10 E.	13 31 W.	3 59 E.	N. 13 E.	16 32 W.
28	2 53	2 42	21 0	20 17	N. 76 W.	44	S. by E.	3	..	..	..	..	..	..	..
29	..	3 59	21 27	20 7	..	..	E.S.E.	1 to 3	27 30	17 0W.	N. 17 E.	12 45 W.	4 15 E.	N. 18 E.	13 45 W.
30	5 30	4 55	21 13	21 7	..	..	E.S.E.	2	..	..	..	..	..	..	..
31	6 29	6 17	..	21 24	..	..	East	5	..	..	..	..	..	..	..
1857 Jan. 1	6 57	6 49	22 1	22 25	..	..	N.E. by N.	2	32 0	17 0W.	N. 29 W.	17 25 W.	0 25 W.	N. 19 W.	27 25 W.
2	7 59	7 59	23 22	23 5	West	17	N.E.	4	..	..	..	..	..	..	..
3	9 29	9 18	24 46	24 21	N. 66 W.	27	N.E. by E.	4	37 0	16 20W.	N. 18 W.	12 32 W.	3 48 E.	N. 10 W.	20 32 W.
4	10 57	10 53	26 11	25 44	N. 81 W.	26	N.E. by E.	4	..	..	..	..	..	..	..
5	12 45	12 44	27 23	27 10	N. 85 W.	13	N.E. by E.	4	43 0	15 45W.	N. 10 W.	11 28 W.	3 17 E.	N. 4 W.	17 28 W.
6	14 45	14 29	28 46	28 20	N. 57 W.	29	N.E. by E.	4	..	..	..	..	..	..	..
7	16 41	16 44	30 5	29 39	N. 83 W.	25	N.E. by E.	5	48 30	15 15W.	N. 7 W.	9 48 W.	5 27 E.	N. 2 W.	19 48 W.
	..	..	..	..	..	..	..	..	..	..	N. 30 W.	12 45 W.	2 30 E.	N. 22 W.	20 45 W.
8	18 59	19 5	31 9	30 35	S. 79 W.	32	E. by N.	7	51 30	15 40W.	N. 1 W.	11 50 W.	3 50 E.	..	..
9	21 9	21 0	31 58	31 37	N. 65 W.	21	Easterly	8	54 0	16 15W.	N. 11 W.	10 17 W.	5 58 E.	N. 3 W.	18 17 W.
10	23 19	23 20	32 41	32 12	S. 88 W.	29	E. by S.	7	..	..	..	..	..	..	..
11	25 22	25 22	33 3	32 57	West	24	East	6	58 0	17 40W.	N. 12 E.	8 42 W.	8 58 E.	N. 16 E.	12 42 W.
	..	..	..	..	..	..	..	..	..	..	N. 8 W.	9 7 W.	8 33 E.	North	17 7 W.

Iron Ship "Advance," Captain Dalison, Second Voyage, Homeward—*continued.*

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
° ′	North. ° ′	West. ° ′	West. ° ′	°	Miles.			° ′	° ′	°	° ′	° ′	°	° ′	° ′
47	27 51	33 29	33 7	S. 78 W.	19	East	6 4	..	..	..	..	..	..	..	..
5	30	33 35	33 10	N. 83 W.	22	E.S.E.	5	62 30	20 30W.	N. 27 E.	5 22 W.	15 8E.	N. 31 E.	9 22 W.	10 8 E.
0	31 46	33 23	33 16	N. 17 W.	15	E.S.E.	3	64 0	21 40W.	N. 30 E.	10 50 W.	10 50 E.	N. 35 E.	15 50 W.	5 50 E.
.	..	..	..	..	..	..	..	..	..	N. 15 E.	12 0 W.	9 40 E.	N. 22 E.	19 0 W.	2 40 E.
.	..	..	..	..	..	..	..	..	..	N. 2 E.	12 20 W.	9 20 E.	N. 11 E.	21 0 W.	0 40 E.
.	..	..	..	..	..	..	..	..	..	N. 10 W.	13 15 W.	8 25 E.	North	23 15 W.	1 35W.
.	..	..	..	..	..	..	..	..	..	N. 21 W.	13 40 W.	8 0 E.	N. 11 W.	24 40 W.	3 0W.
.	..	..	..	..	..	..	..	..	..	N. 31 W.	15 40 W.	6 0 E.	N. 22 W.	24 0 W.	2 20W.
.	..	..	..	..	..	..	..	..	..	N. 36 W.	17 0 W.	4 0 E.	N. 29 W.	24 0 W.	2 20W.
39	33 23	33 23	33 12	N. 30 W.	19	S.E. by S.	3	65 30	22 20W.	N. 72 E.	21 24 W.	0 56 E.	N. 68 E.	17 24 W.	4 56 E.
.	..	..	..	..	..	..	..	..	..	N. 56 E.	19 24 W.	2 56 E.	N. 56 E.	19 24 W.	2 56 E.
..	..	..	..	..	..	..	..	..	.	N. 42 E.	16 10 W.	6 10 E.	N. 45 E.	19 10 W.	3 10 E.
..	..	..	..	..	..	..	..	..	..	N. 26 E.	14 30 W.	7 50 E.	N. 33 E.	21 30 W.	0 50 E.
..	..	..	..	..	..	..	..	..	..	N. 16 E.	14 20 W.	8 0 E.	N. 22 E.	20 20 W.	2 0 E.
..	..	..	..	..	..	..	..	..	..	N. 2 E.	14 12 W.	8 8 E.	N. 11 E.	23 12 W.	0 52W.
..	..	..	..	..	..	..	..	..	..	N. 9 W.	14 12 W.	8 8 E.	North	23 12 W.	0 52W.
23	34 27	33 5	33 6	S. 9 E.	4	S.E. by S.	1	66 0	23 0W.	N. 72 E.	22 26 W.	0 34 E.	N. 68 E.	18 26 W.	4 34 E.
..	..	..	..	.	..	..	..	..	..	N. 48 E.	17 6 W.	5 54 E.	N. 45 E.	19 6 W.	3 54 E
2	35 55	31 43	31 47	N. 56 E.	13	S.S.E.	3	67 0	24 15W.	S. 80 E.	83 39 W.	9 24W.	East	23 39 W.	0 36 E.
..	..	..	..	..	..	..	..	..	..	N. 87 E.	27 9 W.	2 55W.	N. 80 E.	20 9 W.	4 6 E.
..	..	..	..	..	..	..	..	..	..	N. 70 E.	22 30 W.	1 15 E.	N. 68 E.	20 30 W.	3 45 E.
..	..	..	..	..	..	..	..	..	..	N. 57 E.	19 30 W.	4 15 E.	N. 57 E.	19 30 W.	4 45 E.
..	..	..	..	..	..	..	..	..	..	N. 40 E.	18 30 W.	5 15 E.	N. 44 E.	20 30 W.	3 45 E.
..	37 4	..	30 9	..	..	N.E.	8	67 0	25 0W.	N. 56 E.	21 0 W.	4 0 E.	N. 56 E.	21 0 W.	4 0 E.
7 41	37 50	30 29	30 17	..	..	E.N.E.	5	..	..	..	..	..	..	..	
..	38 46	31 34	31 21	..	..	E.N.E.	4	..	..	..	..	..	..	..	..
0 20	40 19	32 29	32 8	..	..	E. by N.	4	..	..	..	..	..	..	..	..
1 45	41 33	32 42	32 47	S. 18 E.	13	East	3	..	..	..	..	..	..	..	..
2 34	42 42	32 57	32 24	..	..	S.E.	2	..	..	..	..	..	..	..	..
3 15	42 32	32 39	32 40	..	..	Easterly	1	..	..	..	..	..	..	..	..
2 58	43 8	31 44	31 34	S. 39 W.	16	N.E.	3	70 30	30 0W.	S. 66 E.	37 8 W.	7 8W.	N. 79 E.	24 8 W.	5 52 E.
2 58	43 5	29 43	29 30	S. 53 W.	12	N.E. by N.	4	..	..	..	..	..	..	..	..
2 34	42 27	27 58	27 46	..	..	Easterly	6	..	..	..	..	..	..	..	..
3 9	43 24	28 6	28 2	S. 11 W.	16	N. by E.	3	..	..	..	..	..	..	..	..
3 37	43 52	27 2	26 53	S. 22 W.	17	E. by N.	3	..	..	..	..	..	..	..	..
3 14	43 30	25 33	25 10	S. 46 W.	23	N.E.	4	69 30	29 0W.	S. 58 E.	36 15 W.	7 15W.	S. 72 E.	22 15 W.	6 45 E.
2 59	43 11	23 54	24 2	S. 26 E.	13	Calm	0	69 0	28 30W.	S. 39 W.	40 30 W.	12 0W.	S. 54 E.	25 30 W.	3 0 E.
4 4?	44 8	22 17	22 19	S. 20 E.	243	West	8	..	..	..	..	..	..	..	..
4 31	44 47	..	20 35	..	..	N.N.W.	10 to 11	..	..	..	..	..	..	..	..
4 19	44 3	20 21	20 4	..	..	North	8 to 9	..	..	..	..	..	..	..	..
4 7	44 7	19 1	19 9	..	..	N.N.E.	4	..	..	..	..	..	..	..	..
4 25	44 25	..	18 57	..	..	Calm Northerly	0 2	..	..	..	..	..	..	..	..
5 40	45 31	17 35	17 33	..	..	Westerly	4	68 30	27 30W.	N. 55 E.	24 50 W.	2 40 E.	N. 63 E.	32 50 W.	5 20W.

LIVERPOOL TO CALCUTTA. 3d VOYAGE.

N.B.—On the outward voyage the cargo consisted in part of 330 tons of rod, hoop, and bar iron, and machinery.

North. 52 16	North. ..	West. 5 11	West. ..	..	..	S.W. by W.	2	..	..	..	..	..	..	..	..
52 20	..	5 55	..	..	..	W. by S.	3	70 0	25 0W.	N. 47 W.	14 40 W.	+10 20	N. 25 W.	37 40 W.	−12 40
51 8	51 4	5 39	5 41	..	..	S.W. by W.	4	..	..	..	..	..	..	..	..
51 3	50 57	6 50	6 51	..	..	Westerly	4	..	..	..	..	..	..	..	..
..	51 0	..	8 53	..	..	W.S.W.	5	..	..	..	..	..	..	..	..
5 7	51 10	10 48	10 44	..	..	S.W. by W.	7/2	..	..	..	..	..	..	..	..

Iron Ship "Advance," Captain Dalison, Liverpool to Calcutta, Third Voyage—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	D t
1857.	North.	North.	West.	West.		Miles.										
May 21	50 4	50 11	9 53	10 13	S. 63 E.	16	S.W. by W.	2	69 30	26 0W.	S. 22 W.	30 31 W.	− 4 31	S. 6 W.	14 31 W.	−
22	48 20	48 18	7 59	8 22	N. 83 E.	16	W.S.W.	4	68 0	24 30W.	S. 18 W.	28 53 W.	− 4 23	S. 10 W.	20 53 W.	+
23	47 33	47 38	8 39	9 6	..	..	Calm S. by W.	0 5	68 0	24 30W.	S. 71 W.	15 40 W.	+ 8 50	..	..	
24	46 8	46 8	8 44	8 35	West	6	N.W. S.W.	7	..	..	..	..	..	..	..	
25	44 46	44 45	9 23	8 59	..	..	S.E. N.W.	8 10 to 9	..	..	..	..	..	..	..	
26	44 9	44 27	8 37	8 26	..	..	Westerly S.	8 to 9	..	..	..	..	..	..	..	
27	44 59	45 7	10 18	10 17	..	..	W. by S.	4	..	..	..	..	..	..	..	
28	42 41	42 45	11 36	11 36	..	..	W.N.W.	4	66 0	23 45W.	S. 55 W.	21 49 W.	+ 1 56	S. 56 W.	22 49 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 38 W.	25 12 W.	− 1 27	S. 30 W.	27 12 W.	−
29	41 15	41 11	11 17	11 26	..	..	S.Westerly	3	65 0	23 15W.	S. 11 E.	31 30 W.	− 8 15	S. 20 E.	22 30 W.	+
30	40 27	40 25	10 30	10 43	..	..	S.W.	2	64 0	22 45W.	S. 14 E.	32 15 W.	− 9 30	S. 22 W.	24 15 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 29 W.	22 39 W.	+ 0 6	S. 36 W.	19 39 W.	+
31	39 44	39 58	10 23	10 38	..	..	W.N.W. and Calms.	1	63 0	22 30W.	S. 53 W.	20 46 W.	+ 1 44	S. 54 W.	21 56 W.	+
June 1	38 10	38 36	11 6	11 2	..	..	W. by N.	2	..	..	..	..	..	..	..	
2	36 39	36 59	12 2	12 5	..	..	N.W. Calm	3 0	62 30	22 20W.	S. 71 W.	18 8 W.	+ 4 12	S. 78 W.	25 8 W.	−
3	36 28	36 26	12 12	12 16	..	..	Calm	0	„	„	S. 46 W.	20 49 W.	+ 1 31	S. 44 W.	18 49 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 63 W.	18 56 W.	+ 3 24	S. 69 W.	24 56 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 83 W.	17 30 W.	+ 4 50	West	24 36 W.	−
4	35 55	36 5	12 46	12 40	..	..	E.N.E.	1	62 30	22 30W.	S. 42 W.	20 52 W.	+ 1 38	S. 40 W.	18 22 W.	+
5	35 9	35 2	13 5	13 7	..	..	West	1	..	..	..	..	..	..	..	
6	34 29	34 43	12 52	13 14	..	..	W.N.W. and Calms	1	61 30	22 0W.	S. 61 W.	18 38 W.	+ 3 22	S. 64 W.	21 38 W.	+
7	33 21	33 26	13 50	13 33	..	..	N.E. to N.W.	1 to 3	..	..	..	..	..	..	..	
	31 7	31 18	16 36	16 37	..	..	N.N.E.	6	..	..	..	..	..	..	..	
	28 53	28 45	19 31	19 22	..	..	E.N.E.	6	53 0	21 20W.	S. 50 W.	20 53 W.	+ 0 27	S. 52 W.	22 53 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 72 W.	19 35 W.	+ 1 45	S. 79 W.	26 35 W.	−
10	26 9	26 11	21 37	21 7	..	..	E.N.E.	6-4	..	..	..	..	..	..	..	
11	24 9	24 19	22 58	22 35	..	..	N.E. by E.	4	55 0	20 0W.	S. 46 W.	19 13 W.	+ 0 47	S. 44 W.	17 13 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 29 W.	20 26 W.	− 0 26	S. 22 W.	13 26 W.	+
12	22 0	22 13	24 8	23 49	..	..	N.E. by E.	4	53 0	19 15W.	S. 42 W.	18 28 W.	+ 0 47	S. 42 W.	18 28 W.	+
13	19 36	19 56	25 20	25 9	..	..	N.E.	5	50 30	18 0W.	S. 42 W.	17 26 W.	+ 0 34	S. 42 W.	17 26 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 64 W.	16 17 W.	+ 1 43	S. 70 W.	22 17 W.	−
14	16 49	16 49	26 44	26 28	..	..	N.E.	5	47 30	17 0W.	S. 39 W.	15 0 W.	+ 2 0	S. 35 W.	11 0 W.	+
15	14 23	14 24	27 35	27 15	..	..	N.Easterly	4	46 0	16 0W.	S. 29 W.	16 58 W.	− 0 58	S. 24 W.	11 58 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 7 W.	18 28 W.	− 2 28	South.	11 28 W.	+
16	11 47	12 0	27 47	27 41	..	..	E.N.E.	3	42 0	15 20W.	S. 16 W.	16 12 W.	− 0 52	S. 11 W.	11 12 W.	+
17	9 41	9 49	27 56	27 47	..	..	E.N.E.	3	39 0	14 45W.	S. 6·5 W.	18 19 W.	− 3 34	S. 1 W.	12 39 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 17 W.	17 14 W.	− 2 29	S. 12 W.	12 14 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 26 W.	16 9 W.	− 1 24	S. 22 W.	11 39 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 44 W.	15 0 W.	− 0 15	S. 44 W.	15 0 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 61 W.	13 30 W.	+ 1 15	S. 67 W.	19 30 W.	−
18	7 32	7 39	28 0	27 55	..	..	N.E. by E.	3	..	..	..	..	..	..	..	
19	6 32	6 31	28 1	28 0	..	..	Calm	0	..	..	..	..	..	..	..	
20	6 7	6 51	27 38	27 50	..	..	Variable	2	..	..	..	..	..	..	..	
21	5 27	5 13	27 29	27 40	..	..	S.E. to N.E.	2	..	..	..	..	..	..	..	
22	4 41	4 32	27 5	27 38	..	..	N.N.E. S. & E.	3 4	..	..	..	..	..	..	..	
23	4 8	3 38	28 2	28 13	..	..	Southerly	3 4	32 0	14 0W.	S. 30·5 W	12 30 W.	+ 1 30	S. 28 W.	10 0 W.	+
24	3 10	3 0	28 36	28 30	..	..	S.Easterly	2	30 0	13 40W.	S. 10 W.	14 26 W.	− 0 46	S. 7 W.	11 26 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 26 W.	13 26 W.	+ 0 14	S. 24·5 W.	11 56 W.	+
25	..	2 49	29 18	28 46	..	..	S.Easterly	1	30 0	13 15W.	S. 48 W.	13 22 W.	− 0 7	S. 52 W.	17 22 W.	−
26	2 29	2 2	30 14	29 34	..	..	S.E.	3	..	..	..	..	..	..	..	

Iron Ship "Advance," Captain Dalison, Liverpool to Calcutta, Third Voyage—*continued.*

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By ser-tion.	By D. R.	By Chrono-meter.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Varia-tion.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
rth.	North.	West.	West.					° ′	° ′	°	° ′	° ′	°	° ′	° ′
15	0 58	30 58	30 29	..	..	S.E. by E.	4	..	..	..	..	..	..	..	..
uth.	South.														
59	1 36	31 1	30 31	..	..	E.S.E.	3 to 5	23 0	11 45W.	S. 23 W.	11 43 W.	+ 0 2	S. 19 W.	7 43 W.	+ 4 2
2	3 53	32 21	31 33	..	..	S.E. by S.	4	..	..	..	..	..	..	..	..
13	6 20	33 29	32 52	..	..	S.E.	4 to 5	17 0	10 0W.	S. 28 W.	8 32 W.	+ 1 28	S. 30 W.	10 32 W.	− 0 32
44	7 40	33 48	33 45	..	..	Variable S.E. by S.	4 to 6	..	..	..	..	..	..	..	..
11	9 4	34 16	33 44	..	..	Variable E. to S.	1 to 6	..	..	..	..	..	..	..	..
33	11 10	34 41	34 24	..	..	S.E. by E.	5	..	..	..	..	..	..	..	..
8	13 46	35 9	34 47	..	..	S.E.	4	..	..	..	..	..	..	..	..
3	16 44	35 33	35 11	..	..	E.S.E.	5	− 3 0	7 0W.	S. 25 W.	9 3 W.	− 2 3	S. 24 W.	8 3 W.	− 1 3
43	19 34	36 10	36 0	..	..	S.E. by E.	4 to 5	..	..	..	..	..	..	..	..
34	22 36	37 19	36 43	..	..	E.S.E.	7	..	..	..	..	..	..	..	..
41	26 45	36 45	36 48	..	..	E. by N.	6	..	..	..	..	..	..	..	..
42	26 26	35 43	35 33	..	..	E. by N.	4	..	..	..	..	..	..	..	..
24	28 27	24 25	33 55	..	..	N.N.Eastly	3	..	..	S. 4 E.	12 19 W.	− 9 49	S. 9 E.	7 19 W.	− 4 49
										S. 11 E.	13 2 W.	−10 32	S. 23 E.	1 2 E.	+ 3 32
										S. 19 E.	13 45 W.	−11 15	S. 35 E.	2 15 E.	+ 4 45
										S. 27 E.	13 35 W.	−11 5	S. 44 E.	3 25 E.	+ 5 55
..	28 9	..	34 27	..	..	..	..	− 4 30	2 30W.	S. 35 E.	14 35 W.	−12 5	S. 55 E.	5 25 E.	+ 7 55
										S. 45 E.	13 25 W.	−10 55	S. 65 E.	6 35 E.	+ 9 5
										S. 59 E.	12 16 W.	− 9 46	S. 80 E.	8 44 E.	+11 14
										S. 73 E.	10 46 W.	− 8 16	N. 88 E.	8 14 E.	+10 44
										S. 81 E.	9 16 W.	− 6 46	N. 78 E.	11 44 E.	+14 14
23	28 38	32 52	33 12	..	..	N.Easterly S.E. by S.	2/5	..	..	..	..	..	..	..	..
10	29 43	33 23	33 3	..	..	Vble S.E.	5	−25 0	5 0W.	N. 31 W.	6 59 W.	− 1 59	S. 35 W.	10 59 W.	− 5 59
11	32 1	32 15	32 11	..	..	E.N.E.	5	..	..	..	..	..	..	..	..
24	33 52	29 43	29 50	..	..	N.E. by E.	5	..	..	..	..	..	..	..	..
37	35 36	27 27	27 33	..	..	N.E. by N.	3	−32 0	7 40W.	S. 48 E.	7 55 W.	− 0 15	S. 67 E.	12 5 E.	+19 45
24	36 24	25 29	25 47	..	..	N. by E.	2	..	..	..	..	..	..	..	..
38	37 2	22 54	23 4	..	..	South	2	..	..	..	..	..	..	..	..
31	37 28	18 31	19 17	..	..	N. by W.	7	..	..	..	..	..	..	..	..
.Mer.															
4	38 24	..	15 34	..	..	N.N.W.	3	..	..	..	..	..	..	..	..
13	38 53	11 9	11 9	..	..	N.W. by N.	8	..	..	..	..	..	..	..	..
..	40 9	..	6 58	..	..	N.W. by N.	8	..	..	..	..	..	..	..	..
..	1 29	..	4 5	..	..	N.N.W.	8	..	..	..	..	..	..	..	..
40	41 37	1 12	2 8	..	..	N.N.W.	5	−47 30	21 0W.	S. 62 E.	31 30 W.	−11 30	East	3 30 W.	+17 30
		East.	East.												
26	41 30	3 20	3 10	..	..	West	10	..	..	..	..	..	..	..	..
8	41 14	6 0	5 30	..	..	„	10	−51 0	25 15W	S. 58 E.	36 44 W.	−11 29	N. 89 E.	2 44 W.	+22 31
..	..	..	..	..	..	W.S.W.	2	..	..	S. 42 E.	36 10 W.	−10 55	S. 73 E.	5 10 W.	+20 5
..	41 2	7 43	7 48	..	..	N.N.W.	1	..	..	..	..	..	..	..	..
0 55	40 56	10 59	10 28	..	..	W.N.W.	7	..	..	..	..	..	..	..	..
0 35	40 45	15 15	15 10	..	..	..	..	..	..	..	..	..	..	..	..
..	40 47	..	17 56	..	..	..	..	..	..	..	..	..	..	..	..
..	41 6	..	20 26	..	..	..	..	..	..	..	..	..	..	..	..
..	40 59	..	23 27	..	..	W. by S.	3	−57 40	31 0W.	S. 49 E.	42 24 W.	−11 24	S. 88 E.	3 24 W.	+27 36
1 7	40 59	27 18	25 8	..	..	S.S.E.	2	−59 0	31 30W.	S. 6 W.	38 24 W.	− 6 54	S. 6 W.	38 24 W.	− 6 54
..	40 23	..	28 52	..	..	S.E. by E.	10	..	..	..	..	..	..	..	..
39 58	39 49	29 1	29 0	..	..	S.E. by E.	11/5	..	..	..	..	..	..	..	..
..	39 39	..	29 22	..	..	S.E. by S.	7	..	..	..	..	..	..	..	..
39 6	38 56	31 43	30 44	..	..	S.S.E.	6	..	..	..	..	..	..	..	..
39 23	39 15	35 37	34 17	..	..	Southerly	5	−61 0	30 30W.	S. 17 E.	37 52 W.	− 7 22	S. 60 E.	5 18 E.	+35 48
..	..	..	..	..	..	..	..	..	..	S. 30 E.	37 44 W.	− 7 14	S. 77 E.	9 11 E.	+39 41

Iron Ship "Advance," Captain Dalison, Liverpool to Calcutta, Third Voyage—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).	
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.
1857. Aug.	South. ° ′	South. ° ′	East. ° ′	East. ° ′					° ′	° ′	°	° ′	° ′	°	° ′
6	..	..	..	..	..	..	..	..	..	..	S. 40 E.	37 46 W.	− 7 16	N. 89 E.	13 14 E.
	..	..	..	..	..	..	..	..	..	..	S. 49 E.	37 32 W.	− 7 2	N. 78 E.	15 28 E.
	..	..	..	..	..	..	..	..	..	..	S. 63 E.	37 18 W.	− 6 48	N. 70 E.	9 42 E.
7	39 26	39 27	39 37	39 32	..	..	S.S.W.	6	..	..	..	..	..	..	..
8	39 51	39 46	44 17	44 3	..	..	S.W.	6	..	..	..	..	..	..	..
9	..	40 6	..	47 40	..	..	W.S.W.	9	..	..	..	..	..	..	..
10	39 57	40 6	51 43	51 1	..	..	S.S.W.	3	..	..	..	..	..	..	..
11	39 55	39 57	55 16	54 46	..	..	S.W.	7	..	..	..	..	..	..	..
12	40 10	39 55	58 51	58 59	..	..	Westerly	3	−66 0	25 45 W.	S. 45 E.	37 39 W.	−11 54	N. 81 E.	16 21 E.
13	..	40 10	..	63 23	..	..	S.W. by W.	5	..	..	..	..	..	..	..
14	40 24	40 10	66 10	65 52	..	..	W.S.W.	8	..	..	..	..	..	..	..
15	39 42	39 50	69 59	69 57	..	..	S.W. by W.	7	..	..	..	..	..	..	..
16	38 52	38 39	73 51	73 45	..	..	S.W. by W.	8	..	..	..	..	..	..	..
17	37 28	37 37	76 55	76 52	..	..	S.W. by W.	6	..	..	..	..	..	..	..
18	35 7	35 6	79 14	78 28	..	..	S.W. by S.	3	−65 0	16 20 W.	N. 48 E.	14 51 W.	+ 1 29	N. 30 E.	3 9 E.
19	32 52	32 53	80 15	80 20	..	..	N.W. by N.	5	..	..	..	..	..	..	..
20	30 34	30 33	81 39	81 14	..	..	N.W.	3	−62 20	12 30 W.	N. 11 E.	9 41 W.	+ 2 49	N. 11 E.	9 41 W
	..	..	..	..	..	..	..	..	..	..	N. 20 E.	7 11 W.	+ 5 19	N. 22 E.	0 49 E.
	..	..	..	..	..	..	..	..	..	..	N. 50 E.	5 11 W.	+ 7 19	N. 33 E.	11 49 E.
21	28 31	28 42	81 58	81 54	..	..	N.W. by W. S.S.E.	2 4	..	..	..	..	..	..	..
22	25 44	26 8	82 5	81 58	..	..	E.S.E.	4	−57 40	8 40 W.	N. 10 E. N. 7 W.	5 33 W. 4 33 W.	+ 3 7 + 4 7	N. 10 E. N. 2 W.	5 33 W 9 33 W
23	22 18	22 17	82 8	82 5	..	..	E.S.E.	6	..	..	..	..	..	..	..
24	18 56	19 8	82 11	82 8	..	..	E.S.E.	5	−52 0	4 0 W.	N. 10 E.	0 56 W.	+ 3 4	N. 10 E.	0 56 W
25	15 33	15 36	82 5	82 11	..	..	..	..	..	..	..	..	..	..	..
26	12 54	12 58	81 51	82 5	..	..	..	..	..	..	..	..	..	..	..
27	9 35	9 36	81 37	81 40	..	..	..	..	..	..	..	..	..	..	..
28	6 42	6 30	81 50	81 40	..	..	..	..	..	..	..	..	..	..	..
29	4 47	4 28	81 28	81 25	..	..	..	..	..	..	..	..	..	..	..
30	3 46	3 52	81 15	81 28	..	..	..	..	..	..	..	..	..	..	..
31	Ex.Mer. 2 59	2 59	..	81 15	..	..	..	..	..	..	..	..	..	..	..
Sept. 1	..	1 27	..	81 24	..	..	..	..	..	..	..	..	..	..	..
2	North. 0 50	North. 0 41	82 39	81 49	..	..	..	..	..	..	..	..	..	..	..
3	3 29	3 30	83 26	82 41	..	..	..	..	..	..	..	..	..	..	..
4	6 27	6 14	84 13	84 34	..	..	..	..	..	..	..	..	..	..	..
5	8 9	7 57	84 27	84 13	..	..	..	..	− 2 30	1 0 E.	N. 13 W.	5 40 E.	+ 4 40	N. 5 W.	2 20 W
6	10 28	9 50	84 12	84 16	..	..	..	..	..	..	..	..	..	..	..
7	12 11	12 16	83 56	84 4	..	..	..	..	..	..	..	..	..	..	..
8	..	14 59	84 8	84 4	..	..	..	..	+10 0	1 15 E.	N. 0 30 E.	5 11 E.	+ 3 56	N. 5 E.	0 10 E
	..	..	..	..	..	..	..	..	..	..	N. 15 E.	0 47 E.	− 0 28	N. 15 E.	0 47 E
9	18 31	18 11	85 4	84 38	..	..	..	..	+17 30	1 30 E.	N. 80 E.	4 18 W.	− 5 48	N. 69 E.	7 42 E
	..	..	..	..	..	..	..	..	..	..	N. 65 E.	0 42 E.	− 0 48	N. 57 E.	8 42 E
	..	..	..	..	..	..	..	..	..	..	N. 51 E.	3 57 E.	+ 2 27	N. 45 E.	9 57 E
10	20 23	20 29	87 16	87 31	..	..	..	..	..	..	N. 44 E.	1 38 E.	+ 0 8	N. 39 E.	6 38 E
11	4 30 P.M. on Pilot Station. Sand Heads.				..	..	..	..	..	..	..	..	..	..	..

CALCUTTA TO HONG KONG.

Oct. 25	9 30 A.M. Pilot left the ship. Heavy swell from N.E., with quantities of rain. No observations.														
26	..	19 20	..	88 43	..	..	..	..	..	..	..	..	..	..	..
27	..	17 44	..	88 25	..	..	..	..	17 0	2 0 E.	S. 11 E.	3 13 W.	− 5 13	S. 18 E.	3 47 E
28	..	16 48	..	87 36	..	..	..	..	..	..	S. 8 W.	?12 18 E.	?+10 18	S. 11 W.	9 18 E
	..	..	..	..	..	..	..	..	..	..	S. 23 W.	?12 48 E.	?+10 48	S. 23 W.	9 48 E
29	17 16	17 2	88 0	88 14	..	..	..	..	15 0	..	N. 15 E.	8 17 E.	+ 6 17	N. 15 E.	8 17 E

Iron Ship "Advance," Captain Dalison, Calcutta to Hong Kong, Third Voyage—*continued.*

Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
orth.	North.	East.	East.												
..	..	..	..	..	..	..	..	..	..	N. 29 E.	7 45 E.	+ 5 45	N. 27 E.	9 45 E.	+ 7 45
0	17 5	88 33	88 46	..	..	..	..	15	2 0 E.	N. 88 E.	1 8 E.	− 0 52	N. 79 E.	10 8 E.	+ 8 8
..	..	..	..	..	..	..	..	..	..	N. 74 E.	3 10 E.	+ 1 10	N. 67 E.	10 10 E.	+ 8 10
..	..	..	..	..	..	..	..	..	..	N. 60 E.	5 12 E.	+ 3 12	N. 56 E.	9 12 E.	+ 7 12
..	..	..	..	..	..	..	..	..	..	N. 51 E.	6 37 E.	+ 4 37	N. 46 E.	11 37 E.	+ 9 37
..	..	..	..	..	..	..	..	..	..	N. 36 E.	8 3 E.	+ 6 3	N. 33 E.	11 3 E.	+ 9 3
..	..	..	..	..	..	..	..	..	..	N. 23 E.	10 11 E.	+ 8 11	N. 22 E.	11 11 E.	+ 9 11
..	..	..	..	..	..	..	..	..	..	N. 12 E.	12 20 E.	+10 20	N. 13 E.	11 20 E.	+ 9 20
31	17 28	90 12	89 49	..	..	..	..	16	2 0 E.	S. 78 E.	1 49 W.	− 2 49	East	10 11 E.	+ 8 11
..	..	..	..	..	..	..	..	..	..	N. 89 E.	1 11 E.	− 0 49	N. 79 E.	11 11 E.	+ 9 11
..	..	..	..	..	..	..	..	..	..	N. 74 E.	4 11 E.	+ 2 11	N. 68 E.	10 11 E.	+ 8 11
..	..	..	..	..	..	..	..	..	..	N. 64 E.	5 32 E.	+ 3 32	N. 58 E.	11 32 E.	+ 9 32
..	..	..	..	..	..	..	..	..	..	N. 50 E.	6 53 E.	+ 4 53	N. 45 E.	11 53 E.	+ 9 53
11	17 17	90 50	90 47	..	..	Calm	0	15	2 0 E.	S. 34 E.	7 30 W.	− 9 30	S. 46 E.	4 30 E.	+ 2 30
..	16 35	91 52	91 20	..	..	S.W.	2	15	2 0 E.	S. 34 E.	6 3 W.	− 8 3	S. 46 E.	5 57 E.	+ 3 57
..	..	..	..	..	..	..	..	..	..	S. 41 E.	5 31 W.	− 7 31	S. 56 E.	9 29 E.	+ 7 29
..	..	..	..	..	..	..	..	..	..	S. 58 E.	5 3 W.	− 7 3	S. 65 E.	9 57 E.	+ 7 57
0	15 9	92 29	92 20	..	..	N.E.	4	..	..	..	..	..	..	..	..
Narcoudam Isle, S.E. ¾ E. 8′.				..	..	N.E.	5	10	2 0 E.	S. 28 E.	6 22 W.	− 8 22	S. 38 E.	3 38 E.	+ 1 38
16	11 17	95 23	95 19	..	..	N.W. / West	6	..	..	..	..	..	..	..	..
41	9 43	96 28	96 21	..	..	W. by N.	4	..	..	..	..	..	..	..	
45	8 39	97 4	97 1	..	..	W. by N.	3	..	..	..	..	..	..	..	
9	7 56	97 25	97 28	..	..	N.W.	2	..	..	..	..	..	..	..	..
9	7 17	97 59	97 54	..	..	West	2	..	..	..	..	..	..	..	
44	5 56	98 43	98 39	..	..	West	3	..	..	..	..	..	..	..	..
..	..	..	..	..	..	N.W.	4	..	..	..	..	..	..	..	..
16	3 19	..	100 39	..	..	N.Westerly	3	..	..	..	..	..	..	..	..
46	..	101 8	..	..	..	Vble. Wly	3	..	..	..	..	..	..	..	..
56	..	102 20	..	..	..	Westerly	4	..	..	..	..	..	..	..	..
11	..	103 26	..	..	..	Westerly	4	..	..	..	..	..	..	..	..
Noon, Coney Island, Lighthouse S.W. by W. ½ W. St. John's Island, outer part, N.E. ½ N.						N.	3	..	..	..	..	..	..	..	..
Noon, Port Romana, N.E. ½ E. Working through Straits of Singapore.				Port Palan, S.		E.N.E.	4	..	..	..	..	..	..	..	..
0 4	..	107 2	..	..	..	Northerly	2 to 5	..	..	..	..	..	..	..	..
0 49	..	..	..	..	..	N.Easterly	1	− 15	1 20 E.	N. 57 W.	3 34 E.	+ 2 14	N. 45 W.	8 26 W.	− 9 46
..	..	..	..	..	..	..	..	..	..	N. 30 W.	4 0 E.	+ 2 40	N. 21 W.	5 0 W.	− 6 20
..	..	..	..	..	..	..	..	..	..	N. 5 W.	5 25 E.	+ 4 5	North	0 25 E.	− 0 55
..	..	..	..	..	..	..	..	..	..	N. 10 E.	6 25 E.	+ 5 5	N. 11 E.	5 12 E.	+ 3 52
..	..	..	..	..	..	..	..	..	..	N. 22 E.	7 0 E.	+ 5 40	N. 22 E.	7 0 E.	+ 5 40
4 15	..	108 45	..	..	..	N.E. by E.	1 to 2	− 7	1 30 E.	N. 22 W.	4 10 E.	+ 2 40	N. 14 W.	3 50 W.	− 5 20
5 49	5 49	108 50	108 46	..	..	N.W.	3	− 3	1 40 E.	N. 39 E.	8 12 E.	+ 6 32	N. 36 E.	11 12 E.	+ 9 32
10 18	10 27	112 40	113 1	..	..	N. to N.E.	3	+ 7	1 30 E.	N. 30 W.	6 28 E.	+ 4 58	N. 22 W.	1 32 W.	− 3 2
..	..	..	..	..	..	..	..	..	..	S. 48 E.	6 0 W.	− 7 30	S. 62 E.	8 0 E.	+ 6 30
..	..	..	..	..	..	..	..	..	..	S. 44 E.	4 55 W.	− 6 25	S. 56 E.	7 5 E.	+ 5 35
13 55	14 5	118 9	118 28	..	..	Vble Ely.	2	15	0 30 E.	N. 23 W.	5 20 E.	+ 4 50	N. 17 W.	0 40 W.	− 1 10
14 3	14 28	118 14	118 6	..	..	N. to N.E.	2	..	..	N. 27 W.	5 30 E.	+ 5 0	N. 21 W.	0 30 W.	− 1 0
14 42	14 28	119 15	119 22	..	..	N.E.	2	16	..	N. 81 E.	0 9 E.	− 0 21	N. 72 E.	9 9 E.	+ 8 39

HONG KONG TO RANGOON.

15 53	16 21	113 46	115 9	..	..	N.E.	5	17	1 0 E.	S. 11 E.	6 17 W.	− 7 17	S. 19 E.	1 43 E.	+ 0 43
..	15 23	113 49	..	..	..	..	..	..	..	S. 13 W.	2 21 W.	− 3 21	S. 12 W.	1 21 W.	− 2 21
..	11 40	..	112 10	..	..	N.E.	5	10	1 30 E.	S. 46 W.	0 0	− 1 30	S. 56 W.	10 0 W.	−11 30
..	..	..	..	..	..	..	..	..	..	S. 39 W.	0 0	− 1 30	S. 45 W.	6 W.	− 7 30
..	..	..	..	..	..	..	..	..	..	S. 31 W.	0 0	− 1 30	S. 33 W.	2 0 W	− 3 30

Iron Ship "Advance," Captain Dalison, Hong Kong to Rangoon, Third Voyage—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation
1858. Jan.	North.	North.	East.	East.					° ′	° ′	°	° ′	° ′	°	° ′	
30	..	..	..	..	..	..	..	..	..	..	S. 22 W.	0 21 W.	− 1 51	S. 22 W.	0 21 W.	− 1
	..	..	..	..	..	..	..	..	..	..	S. 14 W.	0 51 W.	− 2 21	S. 12 W.	1 9 E.	− 0
Feb. 2	Sunrise	5 46	..	..	..	..	N.E.	4	− 5	1 40 E.	S. 30 W.	0 28 E.	− 1 12	S. 33 W.	2 32 W.	− 4
Noon	5 20	5 30	105 54	106 40	..	..	..	..	..	..	S. 77 W.	4 28 E.	+ 2 48	West	8 32 W.	−10
12	7 17	7 12	97 22	98 2	..	..	E.N.E. to N.N.E.	4	− 2 30	1 45 E.	N. 38 W.	3 0 E.	+ 1 15	N. 28 W.	8 0 W.	− 9
13	7 55	..	97 26	..	..	..	N.E. / N.W.	2	0	1 50 E.	N. 6 W.	4 22 E.	+ 2 32	N. 1 W.	0 38 W.	− 2
14	7 51	..	97 59	..	..	..	N.N.W.	..	..	..	N. 70 W.	4 30 E.	+ 2 40	N. 60 W.	5 30 W.	− 7
	..	..	..	..	..	..	..	..	..	..	N. 68 E.	4 15 E.	+ 2 25	N. 63 E.	9 15 E.	+ 7

RANGOON TO HONG KONG.

April 15	15 43	..	96 5	..	..	..	W.S.W.	3	+ 13	2 15 E.	S. 4 30 W.	2 0 W.	− 4 15	South	2 30 E.	+ 0
	..	..	..	..	..	..	..	..	..	..	S. 5 E.	3 5 W.	− 5 20	S. 11 E.	2 30 E.	+ 6
	..	..	..	..	..	..	..	..	..	..	S. 13 E.	5 0 W.	− 7 15	S. 21 E.	3 0 E.	+ 6
16	14 16	..	96 10	..	..	..	West	3	+ 12	..	S. 24 E.	7 30 W.	− 9 45	S. 18 E.	2 30 E.	+ 6
25	6 41	..	98 18	..	..	..	N.N.W.	2	− 3	1 45 E.	S. 27 E.	4 0 W.	− 5 45	S. 37 E.	6 0 E.	+ 4
	..	..	..	..	..	..	..	..	..	..	S. 34 E.	3 0 W.	− 4 45	S. 45 E.	8 0 E.	+ 4
May 3	Mount Formosa, E. by S. ½ S. Mount Monar, E. by N. ½ N.						S.Easterly	2	..	1 30 E.	S. 43 E.	3 41 W.	− 5 11	S. 57 30 E.	10 59 E.	+ 1
	..	..	..	..	..	..	..	..	..	..	N. 41 E.	6 40 E.	+ 5 10	N. 36 E.	11 40 E.	+10
4	Mount Formosa, N. by W. ¼ W., Palo Pisang, E. by N.						N.N.E. / S.W.	3	..	1 30 E.	S. 55 E.	4 45 W.	− 6 15	S. 69 E.	9 15 E.	+ 7
14	..	4 52	105 18	105 6	..	..	S.S.W.	3	− 5	1 40 E.	N. 32 W.	3 36 E.	+ 1 54	N. 22 W.	6 4 W.	− 7
	..	..	..	..	..	..	..	..	..	..	N. 17 W.	4 42 E.	+ 3 2	N. 11 W.	1 18 W.	− 3
	..	..	..	..	..	..	..	..	..	..	N. 3 W.	5 29 E.	+ 3 49	N. 1 E.	2 29 E.	+ 4
	..	..	..	..	..	..	..	..	..	..	N. 10 E.	6 0 E.	+ 4 20	N. 11 E.	5 0 E.	+ 7
	..	..	..	..	..	..	..	..	..	..	N. 24 E.	6 30 E.	+ 4 50	N. 23 E.	7 30 E.	+ 8
15	5 2	..	105 15	..	..	..	S.W.	1	..	..	N. 77 W.	3 10 E.	+ 1 30	West	16 10 W.	−17
20	8 40	..	107 8	..	..	..	S.W.	2	+ 2	1 50 E.	N. 52 E.	7 18 E.	+ 5 28	N. 48 E.	11 18 E.	+ 9
23	12 43	..	111 36	..	..	..	S.W. by S.	5	+ 10	1 30 E.	N. 26 E.	7 3 E.	+ 5 33	N. 24 E.	9 3 E.	+ 7
27	19 13	..	114 29	..	..	..	Southerly	3	+ 24	0 40 E.	N. 24 E.	6 0 E.	+ 5 20	N. 23 E.	7 0 E.	+ 7
	..	..	..	..	..	..	..	..	..	..	N. 9 E.	5 30 E.	+ 4 50	N. 11 E.	3 30 E.	+ 3
	..	..	..	..	..	..	..	..	..	..	N. 4 E.	5 0 E.	+ 4 20	N. 1 E.	0 0	− 0
	..	..	..	..	..	..	..	..	..	..	N. 16 W.	4 30 E.	+ 3 50	N. 10 W.	1 30 W.	− 2
	..	..	..	..	..	..	..	..	..	..	N. 31 W.	4 0 E.	+ 3 20	N. 24 W.	3 0 W.	− 5

HONG KONG TO SINGAPORE, PENANG, AND RANGOON.

1859 Jan. 2	Near Hong Kong.				..	..	..	..	+ 29	0 30 E.	..	..	..	S.S.W.	2 50 W.	− 2
	..	..	..	..	..	..	..	..	..	..	..	..	..	S.W.	9 50 W.	−11
Feb. 5	7 36	..	97 41	..	..	..	E.N.E.	4	− 1	1 50 E.	N. 27 W.	3 40 E.	+ 1 50	N. 18 W.	5 20 W.	− 3
6	9 13	9 5	97 23	97 28	..	..	E.N.E.	4	+ 1	2 0 E.	N. 5 W.	6 8 E.	+ 4 8	North	1 8 W.	− 3
8	12 29	..	96 44	..	..	..	E.N.E.	3	+ 8	2 10 E.	..	..	..	N. by E. ½ E.	6 33 E.	+ 1

RANGOON TO BOMBAY.

Aug. 11	10 47	..	94 37	..	..	..	S.S.W.	2	+ 5	2 0 E.	..	..	..	W. ½ N.	9 0 W.	−11
30	6 42	..	84 34	..	..	..	S.W. by W.	4	− 13	0 45 E.	..	..	..	S. 22 W.	6 0 E.	+ 1
Sept. 1	3 13	..	86 56	..	..	..	S.W.	4	− 12	0 45 E.	..	..	..	W.N.W.	Approx. 14 W.	−11
2	3 30	3 27	85 35	85 29	..	..	S.W.	3	..	..	..	..	..	W. by N.	18 25 W.	−11
8	South. 0 40	South. ..	83 15	..	..	..	W. to S.W.	3	− 20	0 10 E.	..	..	..	South	3 17 E.	+ 1

Iron Ship "Advance," Captain Dalison, Rangoon to Bombay, Third Voyage—*continued.*

te.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
59.	South.	South.	East.	East.												
lt.	° ′	° ′	° ′	° ′					° ′	° ′	°	° ′	° ′	°	° ′	° ′
0	1 46	..	83 52	..	..	..	Vble S.W.	1	−21	0 0	..	..	..	S.W.	10 0 W.	+10 0
							Calms.	0								
7	8 32	..	76 13	..	..	..	S.S.E.	6	−35	1 40W.	..	..	..	West	22 21 W.	−20 41
8	9 4	8 46	..	73 22	..	..	S.E. by S.	6	−37 0	2 10W.	..	..	..	W.N.W.	25 0 W.	−22 50
9	8 52	8 56	70 12	70 52	..	..	S.S.E.	5	−37 30	2 40W.	..	..	..	N. 89 W.	24 13 W.	−21 33
	..	..	..	..	..	..	..	..	..	..	..	..	..	N. 77 W.	22 30 W.	−19 50
	..	..	..	..	..	..	..	..	..	..	..	..	..	N. 64 W.	19 13 W.	−16 33
	..	..	..	..	..	..	..	..	..	..	..	..	..	N. 46 W.	18 50 W.	−16 10
	..	..	..	..	..	..	..	..	..	..	..	..	..	N. 34 W.	17 50 W.	−15 10
0	..	8 22	..	67 27	..	..	S.E.	5 to 7	−36	2 50W.	..	..	..	..	..	..
1	..	6 35	65 12	65 39	..	..	S.E. to S.	6	−32 30	2 40W.	..	..	..	N. 28 W.	13 8 W.	−10 28
2	4 52	4 46	64 35	64 44	..	..	S.Westerly	5	−31 0	2 45W.	N. 69 E.	1 33 W.	+ 1 12	N. 58 E.	7 37 E.	+10 22
	..	..	..	..	..	..	..	..	..	..	N. 50 E.	0 3 W.	+ 2 42	N. 43 E.	6 57 E.	+ 9 42
	..	..	..	..	..	..	..	..	..	..	N. 38 E.	1 27 E.	+ 4 12	N. 35 E.	4 27 E.	+ 7 12
	..	..	..	..	..	..	..	..	..	..	N. 21 30 E.	2 27 E.	+ 5 12	N. 22 E.	1 57 E.	+ 4 42
	..	..	..	..	..	..	..	..	..	..	N. 9 E.	0 20 E.	+ 3 5	N. 11 E.	1 40 W.	+ 1 5
	..	..	..	..	..	..	..	..	..	..	N. 5 W.	0 13 W.	+ 2 32	North	5 13 W.	− 2 28
	..	..	..	..	..	..	..	..	..	..	N. 19 W.	1 43 W.	+ 1 2	N. 11 W.	9 43 W.	− 6 58
	..	..	..	..	..	..	..	..	..	..	N. 33 W.	2 50 W.	− 0 5	N. 22 W.	13 50 W.	−11 5
	..	..	..	..	..	..	..	..	..	..	N. 45 W.	2 50 W.	− 0 5	N. 32 W.	15 50 W.	−13 5
	..	..	..	..	..	..	..	..	..	..	N. 62 W.	2 50 W.	− 0 5	N. 46 W.	18 50 W.	−16 5
	..	..	..	..	..	..	..	..	..	..	N. 74 W.	2 53 W.	− 0 8	N. 56 W.	21 23 W.	−18 38
3	3 15	..	64 31	..	..	..	S.W.	4	−28 0	2 30W.	N. 106 W.	?7 30 W.	− 5 0	N. 80 E.	18 30 E.	+21 0
	..	..	..	..	..	..	..	..	..	..	N. 85 E.	2 0 W.	+ 0 30	N. 70 E.	13 0 E.	+15 30
	..	..	..	..	..	..	..	..	..	..	N. 70 E.	0 30 W.	+ 2 0	N. 58 E.	11 30 E.	+14 0
	..	..	..	..	..	..	..	..	..	..	N. 55 E.	0 30 E.	+ 3 0	N. 48 E.	10 30 E.	+13 0
	..	..	..	..	..	..	..	..	..	..	N. 41 E.	0 50 E.	+ 3 20	N. 34 E.	7 50 E.	+10 20
	..	..	..	..	..	..	..	..	..	..	N. 25 E.	2 50 E.	+ 5 20	N. 22 E.	5 50 E.	+ 8 20
	..	..	..	..	..	..	..	..	..	..	N. 8 E.	1 40 E.	+ 4 10	N. 10 E.	1 40 W.	+ 0 50
	..	..	..	..	..	..	..	..	..	..	N. 5 W.	0 30 E.	+ 3 0	North	4 30 W.	− 2 0
	..	..	..	..	..	..	..	..	..	..	N. 34 W.	2 0 W.	+ 0 30	N. 23 W.	13 0 W.	−10 30
24	1 46	..	64 21	..	..	..	N.W. by W.	4	−25 0	2 15W.	N. 6 W.	1 14 W.	+ 1 1	North	7 14 W.	− 4 59
	..	..	..	..	..	..	..	..	..	..	N. 13 E.	1 0 E.	+ 3 15	N. 15 E.	1 0 W.	+ 1 15
25	0 13	0 17	65 36	65 21	..	..	W.N.W.	3	−22 30	1 50W.	N. 5 E.	0 53 E.	+ 2 43	N. 8 E.	2 7 E.	+ 3 57
26	North. 0 48	North. 0 52	66 13	66 0	..	..	N.W. by W.	2	−20 0	1 40W.	N. 33 W.	1 15 W.	+ 0 25	N. 22 W.	12 15 W.	−10 35
	..	..	..	..	..	..	..	..	..	..	N. 20 W.	1 19 W.	+ 0 21	N. 11 W.	10 19 W.	− 8 39
	..	..	..	..	..	..	..	..	..	..	N. 5 W.	0 17 W.	+ 1 23	North	5 17 W.	− 3 37
	..	..	..	..	..	..	..	..	..	..	N. 17 E.	0 45 E.	+ 2 25	N. 10 E.	2 15 W.	− 0 35
	..	..	..	..	..	..	..	..	..	..	N. 21 E.	0 45 E.	+ 2 25	N. 21 E.	0 45 E.	+ 2 25
	..	..	..	..	..	..	..	..	..	..	N. 52 E.	0 0	+ 1 40	N. 46 E.	6 0 E.	+ 7 40
	..	..	..	..	..	..	..	..	..	..	N. 65 E.	0 51 W.	+ 0 49	N. 56 E.	8 9 E.	+ 9 49
	..	..	..	..	..	..	..	..	..	..	N. 78 E.	1 39 W.	+ 0 1	N. 67 E.	9 21 E.	−11 1
	..	..	..	..	..	..	..	..	..	..	S. 84 E.	2 20 W.	− 0 40	N. 81 E.	12 40 E.	+14 20
	..	..	..	..	..	..	..	..	..	..	S. 73 E.	4 40 W.	− 3 0	East	12 20 E.	+14 0
	..	..	..	..	..	..	..	..	..	..	S. 62 E.	5 40 W.	− 4 0	S. 80 E.	12 20 E.	+14 0
	..	..	..	..	..	..	..	..	..	..	S. 50 E.	6 40 W.	− 5 0	S. 68 E.	11 20 E.	+13 0
	..	..	..	..	..	..	..	..	..	..	S. 39 30 E.	6 20 W.	− 4 40	S. 56 E.	10 10 E.	+11 50
	..	..	..	..	..	..	..	..	..	..	S. 31 E.	6 0 W.	− 4 20	S. 45 E.	8 0 E.	+ 9 40
Oct. 1	9 9	..	67 11	..	..	..	W.N.W.	4	− 5 0	0 50W.	N. 16 E.	1 36 E.	+ 2 26	N. 18 W.	0 24 W.	+ 0 26
3	13 49	..	67 58	..	..	..	W.N.W.	5	+ 5 0	0 30W.	N. 8 E.	4 11 E.	+ 4 41	N. 11 E.	1 11 E.	+ 2 41
	..	..	..	..	..	..	..	..	..	..	N. 21 E.	..	..	N. 22 E.	3 11 E.	+ 3 41
	..	..	..	..	..	..	..	..	..	..	N. 33 E.	4 41 E.	+ 5 11	N. 32 E.	5 41 E.	+ 6 11
5	17 33	..	70 31	..	..	..	N.W. by W.	5	13 0	0 0	N. 27 E.	3 10 E.	+ 3 10	N. 26 E.	4 10 E.	+ 4 10
	..	..	..	..	..	..	..	..	..	..	N. 46 E.	2 40 E.	+ 2 40	N. 43 E.	5 40 E.	+ 5 40

Iron Ship "Advance," Captain Dalison, Bombay to Liverpool, Third Voyage—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
							BOMBAY TO LIVERPOOL.									
1859. Dec.	North. ° ′	North. ° ′	East. ° ′	East. ° ′					° ′	° ′	°	° ′	° ′	°	° ′	°
4	17 5	17 14	71 48	71 49	..	..	Nly.	4	12 30	0 10 E.	S. 45 W.	1 47 E.	+ 1 37	S. 56 W.	9 13 W.	− 9
	..	..	..	..	..	..	..	..	..	..	S. 27 W.	1 17 E.	+ 1 7	S. 33 W.	4 43 W.	− 4
	..	..	..	..	..	..	..	..	..	..	S. 10 W.	0 17 E.	+ 0 7	S. 10 W.	0 17 E.	+ 0
5	15 37	15 47	71 14	71 6	..	..	N. by W.	3	9 0	0 0	S. 25 W.	0 30 E.	+ 0 30	S. 31 W.	5 30 W.	− 5
6	14 30	14 28	70 31	70 35	..	..	N.N.W.	3	..	..	..	..	..	..	..	..
7	13 45	13 39	69 58	70 9	..	..	N.N.E.	2	7 0	0 15W.	S. 26 W.	0 18 E.	+ 0 33	S. 33 W.	6 42 W.	− 6
8	12 22	12 19	69 17	69 10	..	..	N.E. by N.	3	..	..	..	..	..	..	..	..
9	10 54	10 56	68 35	68 30	..	..	N.E. by N.	3	..	..	..	..	..	..	..	..
10	9 36	9 30	67 43	67 50	..	..	N.E. by E.	3	..	..	..	..	..	..	..	..
11	8 20	8 19	67 5	67 4	..	..	E.N.E.	4	− 6 0	0 50W.	S. 25 30 W.	0 39 E.	+ 1 29	S. 33 W.	6 51 W.	− 6
12	6 46	6 42	65 55	66 3	..	..	N.E.	4	..	..	..	..	..	..	..	..
13	5 11	5 14	64 57	65 57	..	..	N. to N.E.	3	−12 0	1 20W.	S. 33 W.	0 55 E.	+ 2 15	S. 38 W.	7 5 W.	− 5
14	4 15	4 27	64 19	64 29	..	..	N. to N.E.	2	−14 0	1 40W.	S. 29 W.	0 43 W.	+ 0 57	S. 37 W.	9 34 W.	− 7
15	4 4	..	63 55	..	..	..	N.Ely.	1	−15 0	1 40W.	S. 71 W.	0 30 E.	+ 2 10	S. 87 W.	15 30 W.	−13
16	3 25	3 20	63 30	..	..	..	N.Ely.	2	..	..	..	..	..	..	..	..
17	2 33	2 40	62 53	63 12	..	..	S.W. / N.E.	1 / 2	−17 30	1 50W.	S. 26 W.	2 18 W.	− 0 28	S. 34 W.	10 18 W.	− 8
	..	..	..	..	..	..	..	..	..	..	S. 34 W.	1 48 W.	+ 0 2	S. 45 W.	12 48 W.	−10
18	1 58	2 6	62 54	62 40	..	..	E.N.E. / W.S.W.	1	−18 0	2 0W.	S. 9 W.	3 36 W.	− 1 36	S. 9 W.	3 36 W.	− 1
19	1 30	1 47	63 4	62 48	..	..	N.N.E.	1	..	..	..	..	..	..	..	..
20	0 43	0 47	63 15	63 35	..	..	N.N.E.	2	..	..	..	..	..	..	..	..
21	South. 0 9	South. 0 14	63 31	63 21	..	..	Wly.	2	..	..	..	..	..	..	..	..
22	0 56	1 22	64 59	64 28	..	..	..	..	..	..	..	..	..	..	..	..
23	1 10	1 15	64 58	64 8	..	..	Calm	0	..	..	..	..	..	..	..	..
24	1 19	1 34	65 13	64 56	..	..	S.W. to W. / Calm	1 / 0	..	..	..	..	..	..	..	..
25	1 47	1 49	65 25	65 3	..	..	N.N.E.	1	−25 0	2 0W.	S. 20 W.	2 33 W.	− 0 33	S. 26 W.	8 33 W.	− 6
26	3 23	3 29	65 22	64 49	..	..	W.N.W.	4	..	..	..	..	..	..	..	..
27	4 53	5 0	65 41	65 7	..	..	S.W.toN.W.	6	..	..	..	..	..	..	..	..
28	..	6 26	..	65 13	..	..	W.N.W.	5	..	..	..	..	..	..	..	..
29	7 6	7 0	65 22	65 5	..	..	Westerly	1	..	..	..	..	..	..	..	..
30	8 17	8 15	65 8	65 1	..	..	Westerly	2	−37 0	3 10W.	South	5 10 W.	− 2 0	S. 7 E.	2 50 E.	+
	..	..	..	..	..	..	..	..	..	..	S. 60 E.	6 10 W.	− 3 0	S. 81 E.	14 50 E.	+1
31	8 48	8 46	65 24	65 18	..	..	Vble. S. to S.W.	1	−37 30	3 10	S. 18 E.	8 10 W.	− 5 0	S. 29 E.	2 50 E.	+
1860. Jan. 1	9 13	9 13	65 44	65 41	..	..	Vble. S. to S.W.	1	..	..	..	..	..	..	..	..
2	9 35	9 33	65 47	65 34	..	..	W.S.W. / Calms.	1 / 0	−38 0	3 15W.	S. 48 W.	1 18 W.	+ 1 57	S. 67 W.	20 18 W.	−17
	..	..	..	..	..	..	..	..	..	..	S. 64 W.	0 49 W.	+ 2 26	S. 86 W.	22 49 W.	−19
	..	..	..	..	..	..	..	..	..	..	S. 75 W.	1 21 W.	+ 1 54	N. 82 W.	24 20 W.	−21
	..	..	..	..	..	..	..	..	..	..	N. 80 W.	1 53 W.	+ 1 22	N. 59 W.	22 53 W.	−19
	..	..	..	..	..	..	..	..	..	..	N. 48 W.	1 48 W.	+ 1 27	N. 34 W.	15 48 W.	−13
	..	..	..	..	..	..	..	..	..	..	N. 21 W.	0 48 W.	+ 2 27	N. 11 W.	10 48 W.	−
	..	..	..	..	..	..	..	..	−38 0	3 15W.	N. 10 E.	0 20 E.	+ 3 35	N. 12 E.	1 40 W.	+
	..	..	..	..	..	..	..	..	..	..	N. 39 E.	0 36 E.	+ 3 51	N. 34 E.	5 36 E.	+
	..	..	..	..	..	..	..	..	..	..	N. 70 E.	0 41 W.	+ 2 34	N. 58 E.	11 19 E.	+1
	..	..	..	..	..	..	..	..	..	..	S. 83 E.	4 58 W.	− 1 43	N. 78 E.	14 2 E.	+1
	..	..	..	..	..	..	..	..	..	..	S. 26 W.	1 38 W.	+ 1 37	S. 36 W.	11 38 W.	−
3	10 10	10 10	64 56	65 12	..	..	S.S.E.	3	−40 0	3 30W.	S. 38 W.	4 12 W.	− 0 42	S. 56 W.	22 12 W.	−1
	..	..	..	..	..	..	..	..	..	..	S. 46 W.	2 12 W.	+ 1 18	S. 66 W.	22 42 W.	−1
4	10 44	10 38	63 57	64 26	..	..	S. to S.E.	2	..	..	..	..	..	..	..	
5	11 27	11 24	62 51	63 17	..	..	S.E. by E.	2	..	..	..	..	..	..	..	
6	12 7	12 10	62 10	62 7	..	..	E.S.E.	2	..	..	..	..	..	..	..	

Iron Ship "Advance," Captain Dalison, Bombay to Liverpool, Third Voyage—*continued.*

	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
	South.	South.	East.	East.												
	° ′	° ′	° ′	° ′					° ′	° ′	°	° ′	° ′	°	° ′	° ′
	13 35	13 26	61 2	61 20	..	..	S.E.	2	−45 0	5 15W.	S. 39 W.	5 21 W.	− 0 6	S. 58 W.	24 21 W.	−19 6
	14 54	14 53	59 52	60 2	..	..	S.S.E.	3	..	..	..	..	..	..	..	..
	..	16 9	58 17	58 29	..	..	S.E.	3 to 5	..	..	..	..	..	..	..	..
	17 17	17 8	57 21	57 31	..	..	S.S.E. to E.	3 to 5	−50 0	8 0W.	..	..	..	S. 67 W.	32 2 W.	−24 2
	18 50	18 41	55 42	56 1	..	..	S. by W.	4	−52 0	9 30W.	S. 70 W.	10 7 W.	− 0 37	N. 84 W.	36 7 W.	−26 37
	19 8	19 11	53 27	53 53	..	..	S.W.	4	..	..	..	..	..	..	..	..
	19 12	19 8	51 19	51 42	..	..	S.Westerly	3	..	..	..	..	..	..	..	..
	19 12	..	51 29	..	..	..	..	..	−52 0	11 30W.	S. 19 E.	16 17 W.	− 4 47	S. 44 E.	8 43 E.	+20 13
	..	..	..	..	..	..	..	..	..	..	S. 40 E.	15 11 W.	− 3 41	S. 68 E.	12 49 E.	+24 19
	..	..	..	..	..	..	..	..	..	..	S. 61 E.	14 36 W.	− 3 6	East	14 24 E.	+25 54
	..	..	..	..	..	..	..	..	..	..	S. 89 E.	11 22 W.	+ 0 8	N. 68 E.	11 37 E.	+23 7
	..	..	..	..	..	..	..	..	..	..	N. 60 E.	8 27 W.	+ 3 3	N. 46 E.	5 36 E.	+17 6
	..	..	..	..	..	..	..	..	..	..	N. 25 E.	7 14 W.	+ 4 16	N. 22 E.	4 14 W.	+ 7 16
	..	..	..	..	..	..	..	..	..	..	N. 6 W.	7 46 W.	+ 3 44	North	13 46 W.	− 2 16
	..	..	..	..	..	..	..	..	..	..	N. 40 W.	10 6 W.	+ 1 24	N. 23 W.	27 6 W.	−15 36
	..	..	..	..	..	..	..	..	..	..	N. 68 30 W.	11 56 W.	− 0 26	N. 46 W.	34 26 W.	−22 56
	..	..	..	..	..	..	..	..	..	..	S. 86 W.	11 56 W.	− 0 26	N. 67 W.	39 56 W.	−28 26
	19 22	19 17	49 57	50 25	..	..	Vble S.W.	2	..	..	..	..	..	..	..	..
	19 56	19 56	49 58	50 1	..	..	S.S.W.	1	−52 30	13 0W.	S. 7 W.	16 20 W.	− 3 20	S. 6 W.	12 20 W.	+ 0 40
	..	..	..	..	..	..	..	..	..	..	S. 18 W.	13 20 W.	− 0 20	S. 27 W.	22 20 W.	− 9 20
	..	20 17	..	49 55	..	..	Calm	0	..	..	..	..	..	..	..	..
	22 4	21 44	49 21	49 34	..	..	S.E. by S.	3	..	..	..	..	..	..	..	..
	22 49	22 45	48 56	49 4	..	..	Calm	0	..	..	..	..	..	..	..	..
	..	23 11	..	48 51	..	..	Calm	0	..	..	..	..	..	..	..	..
	24 47	24 37	48 33	48 29	..	..	East	4	..	..	..	..	..	..	..	..
	27 23	27 12	46 2	46 38	..	..	E.S.E.	5	−57 30	9 45W.	S. 62 W.	12 15 W.	+ 7 30	N. 83 W.	56 15 W.	−36 30
	..	28 35	..	43 28	..	..	Easterly	5	..	..	..	..	..	..	..	..
	29 44	29 43	40 15	40 19	..	..	S.E. by S.	6	−57 30	24 0W.	N. 89 W.	24 53 W.	− 0 53	N. 57 W.	56 33 W.	−32 33
	30 17	30 30	37 58	38 7	..	..	East	2	−57 0	25 15W.	West	25 28 W.	− 0 13	N. 58 W.	57 38 W.	−32 23
	30 53	30 37	37 25	36 59	..	..	Calm	0	..	..	..	..	..	..	..	..
	31 25	31 19	36 16	36 16	..	..	South	3	−57 30	26 20W.	N. 88 W.	26 0 W.	+ 0 20	N. 56 W.	58 0 W.	−31 40
	31 59	31 59	34 4	34 25	..	..	E.S.E.	3	−57 0	27 20W.	West	27 0 W	+ 0 20	N. 57 W.	59 0 W.	−31 40
	32 28	32 19	32 52	32 4	..	..	S.W.	6	..	..	..	..	..	..	..	..
	32 23	32 43	30 30	30 35	..	..	S. Easterly	2	..	..	..	..	..	..	..	..
	34 14	33 41	27 51	28 5	..	..	E.S.E.	6	..	..	..	..	..	..	..	..
	35 2	34 35	25 2	25 59	..	..	South	3	..	..	..	..	..	..	..	..
Feb. 1	35 24	35 7	21 4	22 23	6 P.M.	Lat 35 2 18 Lon. Chr. 20 10 30	S.E. by E.	5	−55 0	30 0W.	..	..	..	N. by W.	42 6 W.	−12 6
2	34 19	34 13	17 23	17 46	..	..	S.S.E.	6	−52 30	29 30W.	..	..	..	N. by W.	42 40 W.	−18 10
3	32 6	32 23	14 41	14 47	..	..	S.S.W.	5	−50 0	29 0W.	..	..	..	N. ½ W.	45 0 W.	−16 0
4	30 1	30 19	12 2	11 55	..	..	S.S.W.	4	−47 0	28 20W.	N. 22 W.	25 0 W.	+ 3 20	N. 8 W.	39 0 W.	−10 40
5	28 11	28 14	10 4	9 51	..	..	S.S.W.	3	..	..	..	..	..	..	..	..
6	26 36	26 36	8 13	8 24	..	..	W.S.W.	4	−40 0	27 30W.	N. 21 30 W.	23 30 W.	+ 4 0	N. 8 W.	37 0 W.	− 9 30
7	..	24 53	5 57	6 7	..	..	South	3	..	..	..	..	..	..	..	..
8	..	23 15	..	3 59	..	..	S.E.	4	..	..	..	..	..	..	..	..
9	Double alt. 22 6	21 50	2 1	2 19	..	..	S.S.E.	3	..	..	..	..	..	..	..	..
10	20 50	20 40	0 23	0 26	..	..	S.S.E.	3	..	..	..	..	..	..	..	..
11	19 45	19 52	West. 1 1	West. 0 54	..	..	..	..	−25 0	25 30W.	N. 20 W.	23 52 W.	+ 1 38	N. 11 W.	33 52 W.	− 8 22
12	18 24	18 26	2 38	2 33	..	..	S.E. by S.	3	−22 30	25 10W.	N. 24 W.	23 29 W.	+ 1 41	N. 12 W.	35 29 W.	−10 19
13	17 18	17 19	4 6	3 54	..	..	S.E. by S.	3	..	..	..	..	..	..	..	..
14	16 4	15 58	5 38	5 31	..	..	..	..	..	..	..	..	..	..	..	..
15	15 12	15 6	6 47	6 37	..	..	S.S.E.	2	..	..	..	..	..	..	..	..
16	14 7	14 4	8 5	8 2	..	..	S.E.	3	−10 0	23 10W.	N. 21 W.	21 15 W.	+ 1 55	N. 11 W.	31 15 W.	− 8 5
17	13 5	13 1	9 21	9 18	..	..	S.E. by S.	3	..	..	..	..	..	..	..	..

Iron Ship "Advance," Captain Dalison, Bombay to Liverpool, Third Voyage—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D.R.	By Chronometer.	By D.R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
1860. Feb.	South. ° ′	South. ° ′	West. ° ′	West. ° ′					° ′	° ′	°	° ′	° ′	°	° ′	° ′
18	11 52	12 0	10 27	10 31	..	..	S.E.	3	− 5 0	22 20W.	N. 18 W.	20 26 W.	+ 1 54	N. 8 W.	20 26 W.	+ 1 5
19	10 51	10 58	11 26	11 19	..	..	S.E.	2	..	..	..	..	..	..	..	..
20	9 52	9 50	12 28	12 18	..	..	S.E.	2	..	..	..	..	..	..	..	..
21	8 46	8 43	13 44	13 27	..	..	S.E. by S.	3	+ 3 0	21 10W.	N. 15 W.	19 4 W.	+ 2 6	N. 7 W.	27 4 W.	− 5 5
22	7 30	7 23	14 42	14 44	..	..	S.E. by E.	3	..	..	..	..	..	..	..	..
23	6 18	6 15	15 51	15 44	..	..	S.S.E.	3	..	..	..	..	..	..	..	..
24	4 58	5 4	16 56	16 53	..	..	S.E. by S.	3	..	..	..	..	..	..	..	..
25	3 59	3 52	18 15	17 59	..	..	S.E. by S.	2	..	..	..	..	..	..	..	..
26	3 0	3 1	19 25	19 14	..	..	Vble S.E. by S.	2	16 0	18 0W.	N. 26 W.	17 25 W.	+ 0 35	N. 15 W.	28 25 W.	−10
27	2 5	2 14	20 25	20 14	..	..	S.E. by S.	2	..	..	..	..	..	..	..	..
28	1 19	1 21	21 18	21 3	..	..	S.S.E.	2	19 0	17 0W.	N. 27 W. N. 2 W.	17 25 W. 16 25 W.	− 0 25 + 0 35	N. 16 W. N. 4 E.	28 25 W. 22 25 W.	−11 − 5
29	..	0 21	..	20 44	..	..	Vble N.E. to S.E.	2	..	..	..	..	..	..	..	..
Mar. 1	North. ..	North. 0 42	..	21 45	..	..	East	2	..	..	..	..	..	..	..	..
2	..	1 50	..	21 45	..	..	..	..	..	..	..	..	..	..	..	..
3	2 35	1 55	22 13	21 45	..	..	Variable	1	26 0	16 40W.	N. 15 30 W.	15 10 W.	+ 1 30	N. 18 W.	17 40 W.	− 1
4	3 12	2 51	..	22 28	..	..	Variable N. Easterly	1	27 0	16 40W.	N. 59 W.	16 30 W.	+ 0 10	N. 53 E.	10 30 W.	+ 6
5	3 50	3 47	..	23 4	..	..	N. to E.	3	..	..	..	..	..	..	..	..
6	4 22	4 14	23 2	23 15	..	..	N.W. N.E.	2	29 0	16 30W.	N. 45 W.	15 48 W.	+ 0 42	N. 33 W.	27 28 W.	−10
	..	..	..	..	..	..	..	..	..	..	N. 75 E.	19 29 W.	− 2 59	N. 65 E.	9 29 W.	+ 7
	..	..	..	..	..	..	..	..	..	..	S. 47 E.	23 15 W.	− 6 45	S. 61 E.	9 15 W.	+ 7
	..	..	..	..	..	..	..	..	..	..	S. 28 E.	24 48 W.	− 8 18	S. 39 E.	13 48 W.	+ 2
	..	..	..	..	..	..	..	..	..	..	S. 17 E.	22 38 W.	− 6 8	S. 25 E.	14 38 W.	+ 1
	..	..	..	..	..	..	..	..	..	..	S. 1 W.	21 55 W.	− 5 25	S. 1 E.	19 55 W.	− 3
	..	..	..	..	..	..	..	..	..	..	S. 18 W.	19 26 W.	− 2 56	S. 22 W.	23 20 W.	− 6
	..	..	..	..	..	..	..	..	..	..	S. 36 W.	16 40 W.	− 0 10	S. 46 W.	26 40 W.	−10
	..	..	..	..	..	..	..	..	..	..	S. 55 W.	16 7 W.	+ 0 23	S. 67 W.	28 7 W.	−11
	..	..	..	..	..	..	..	..	..	..	S. 76 W.	15 50 W.	+ 0 50	N. 89 W.	30 50 W.	−14
	..	..	..	..	..	..	..	..	..	..	N. 78 W.	16 35 W.	− 0 5	N. 62 30 W.	32 5 W.	−15
	..	..	..	..	..	..	..	..	..	..	N. 58 W.	15 50 W.	+ 0 40	N. 45 W.	28 50 W.	−11
7	4 39	4 39	24 7	24 59	..	..	N.N.E.	3	..	..	..	..	..	..	..	
8	5 38	5 37	25 15	24 59	..	..	N.E. by N.	3	..	..	..	..	..	..	..	
9	7 8	7 3	26 49	26 25	..	..	N.E. by N.	3	..	..	..	..	..	..	..	
10	8 28	8 18	28 25	28 8	..	..	N.N.E.	4	..	..	..	..	..	..	..	
11	10 13	9 49	30 4	29 49	..	..	N.E. by N.	4	40 0	13 50W.	..	..	..	N. ½ W.	14 12 W.	−
12	12 29	12 17	31 18	31 0	..	..	E.N.E.	4	43 0	13 30W.	..	..	..	N. ½ W.	14 6 W.	−
13	14 27	14 29	32 24	32 9	..	..	E.N.E.	4	..	..	..	..	..	..	..	
14	16 19	16 19	32 54	32 30	..	..	E. by N.	3	..	..	..	..	..	..	..	
15	18 24	18 18	33 29	33 4	..	..	East	3	52 0	14 0W.	..	..	..	N. ½ E.	13 W.	+
16	19 47	19 52	34 5	33 56	..	..	E.N.E.	2	..	..	..	..	..	..	..	
17	20 57	21 3	35 2	34 45	..	..	N.E.	2	54 30	14 30W.	..	..	..	N.by W.½ W.	18 42 W.	−
18	21 44	21 52	35 52	35 46	..	..	N.E. by E.	2	..	..	..	..	..	..	..	
	..	21 36	35 48	..	..	..	..	..	55 30	14 30W.	N. 14 E.	10 36 W.	+ 3 54	N. 18 E.	14 36 W.	−
	..	..	..	..	..	..	..	..	..	..	N. 8 W.	9 30 W.	+ 5 0	North	17 30 W.	−
	..	..	..	..	..	..	..	..	..	..	N. 34 W.	10 38 W.	+ 3 52	N. 24 W.	28 30 W.	−1
	..	..	..	..	..	..	..	..	..	..	N. 57 W.	11 30 W.	+ 3 0	N. 45 W.	23 30 W.	−
	..	..	..	..	..	..	..	..	..	..	N. 86 W.	13 8 W.	+ 1 22	N. 71 30 W.	27 38 W.	−1
	..	..	..	..	..	..	..	..	..	..	S. 74 W.	13 10 W.	+ 1 20	S. 87 W.	26 10 W.	−1
	..	..	..	..	..	..	..	..	..	..	S. 54 30 W.	13 40 W.	+ 0 50	S. 67 W.	26 50 W.	−1
	..	..	..	..	..	..	..	..	..	..	S. 36 W.	14 15 W.	+ 0 15	S. 43 W.	21 15 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 18 W.	15 41 W.	− 1 11	S. 20 W.	17 41 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 4 W.	19 54 W.	− 5 24	S. 1 W.	16 54 W.	−
	..	..	..	..	..	..	..	..	..	..	S. 14 E.	19 48 W.	− 5 18	S. 22 W.	11 48 W.	+
	..	..	..	..	..	..	..	..	..	..	S. 18 W.	20 10 W.	− 5 40	S. 27 E.	10 10 W.	+

Iron Ship "Advance," Captain Dalison, Bombay to Liverpool, Third Voyage—*continued.*

Date.	Latitude		Longitude		Difference between Position by Observation and by D. R.		Winds.		Approximate Magnetic.		Standard Compass (Uncompensated).			Steering Compass (Compensated).		
	By Observation.	By D. R.	By Chronometer.	By D. R.	Direction.	Amt.	Direction.	Force.	Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
1860. Mar.	North. ° ′	North. ° ′	West. ° ′	West. ° ′					° ′	° ′	°	° ′	° ′	°	° ′	° ′
19	22 20	22 15	36 11	36 0	..	..	Calm	0	56 0	14 40W	..	..	..	N.E.	9 36 W.	+ 5 4
	..	..	..	..	..	..	..	..	..	..	..	..	..	E.N.E.	8 36 W.	+ 6 4
20	22 53	22 48	36 11	36 8	..	..	Calm	0	..	..	..	..	..	..	..	..
21	..	23 16	35 50	36 0	..	..	Vble S.W.	1	..	..	..	..	..	..	..	..
22	23 26	23 44	35 52	35 53	..	..	Variable	1	57 0	16 0W.	..	..	..	N.N.E.	10 44 W.	+ 5 16
23	24 20	24 31	36 55	36 53	..	..	N.E.	3	..	..	..	..	..	..	..	..
24	25 55	25 48	37 31	37 10	..	..	E.N.E.	3	..	..	..	..	..	..	..	..
25	27 42	27 42	37 30	37 10	..	..	East	4	..	..	..	..	..	..	..	..
26	29 57	29 50	38 2	37 30	..	..	E. by N.	4	63 0	18 45W.	..	..	..	N. ½ E.	13 18 W.	+ 5 27
	31 55	31 48	37 59	38 2	..	..	E. by N.	4	..	..	..	..	..	..	..	..
	32 57	33 15	37 24	37 27	..	..	E. by N.	3	66 0	21 15	N. 76 E.	22 29 W.	− 1 14	N. 67 E.	13 29 W.	+ 7 46
	..	..	..	..	..	..	..	..	..	..	N. 48 E.	16 54 W.	+ 4 21	N. 45 E.	13 54 W.	+ 7 21
	..	..	..	..	..	..	..	..	..	..	N. 7 W.	12 15 W.	+ 9 0	North	19 38 W.	+ 1 37
	..	..	..	..	..	..	..	..	..	..	N. 46 W.	13 31 W.	+ 7 44	N. 34 W.	25 31 W.	− 4 16
	..	..	..	..	..	..	..	..	..	..	S. 71 W.	11 57 W.	+ 9 18	N. 86 W.	26 57 W.	− 5 42
29	33 44	33 35	36 30	36 22	..	..	S.S.E.	3	66 0	22 0W.	N. 78 30 E.	22 42 W.	− 0 42	N. 68 E.	12 12 W.	+ 9 48
	..	..	..	..	..	..	..	..	..	..	S. 76 E.	29 12 W.	− 7 12	East	15 12 W.	+ 6 48
	..	..	..	..	..	..	..	..	..	..	N. 48 E.	18 30 W.	+ 3 30	N. 45 E.	15 30 W.	+ 6 30
30	33 46	..	35 7	..	..	..	S.W.	4	..	..	..	..	..	..	..	..
31	36 33	36 18	32 48	32 58	..	..	W.S.W.	8	..	..	..	..	..	..	..	..
Apr. 1	..	37 8	..	31 41	..	..	N.W. to N.E. / S.E.	3	..	..	..	..	..	..	..	..
2	37 54	38 20	29 30	29 28	..	..	West / North	6 / 7	..	..	..	..	..	..	..	..
3	38 13	38 47	29 47	29 28	..	..	..	..	67 15	26 0W.	N. 64 E.	17 15 W.	+ 8 45	N. 56 E.	9 15 W.	+16 45
	Position by bearings of Pico.															
4	..	38 23	..	28 35	..	..	Variable and Calms under lee of Pico.		„	„	N. 30 30 W.	25 10 W.	+ 0 50	N. 53 30 W.	19 40 W.	+ 6 20
..											N. 30 30 E.	24 10 W.	+ 1 50	N. 53 30 W.?	19 40 W.	+ 6 20
..											N. 76 E.	26 10 W.	− 0 10	N. 67 W.?	17 10 W.	+ 8 50
..											S. 76 E.	30 10 W.	− 4 10	East	16 10 W.	+ 9 50
..											S. 52 E.	33 40 W.	− 7 40	S. 69 E.	15 40 W.	+10 20
..											S. 30 E.	33 10 W.	− 7 10	S. 45 E.	18 10 W.	+ 7 50
..											S. 10 E.	32 10 W.	− 6 10	S. 20 E.	22 10 W.	+ 3 50
..											S. 6 W.	29 40 W.	− 3 40	S. 2 W.	25 40 W.	+ 0 20
..											S. 21 W.	26 40 W.	− 0 40	S. 23 30 W.	27 10 W.	− 1 10
..											S. 40 W.	23 40 W.	+ 2 20	S. 50 W.	33 40 W.	− 7 40
..											S. 57 W.	20 40 W.	+ 5 20	S. 70 W.	33 40 W.	− 7 40
..											S. 75 W.	19 40 W.	+ 6 20	N. 78 W.	35 10 W.	− 9 10
..											N. 81 W.	19 10 W.	+ 6 50	N. 66 W.	34 10 W.	− 8 10
..											N. 59 W.	18 40 W.	+ 7 20	N. 45 W.	30 40 W.	− 4 40
..											N. 9 30 W.	15 40 W.	+10 20	North	25 10 W.	+ 0 50
..											N. 17 E.	15 10 W.	+10 50	N. 22 E.	20 10 W.	+ 5 50
..											..	..	..	N. 20 W.	27 40 W.	− 1 40

Remarks.

When these observations were taken for deviation the ship lay close under the Peak of Pico, an azimuth observation was made at first and last observation in order to obtain the true bearing of the Peak observed as the ship was wore round, there being very little wind at the time. In the column marked Variation by Chart is the Deviation, &c. as obtained by bearings taken by after compass, which, as it differs from that found by comparison of the two compasses, leads me to suppose that there must be an error in the position of the lubber's lines, which I shall be better able to ascertain on arrival in port.

(These observations close the log so far as compass observations are concerned.)

Iron Ship "Advance," Captain Dalison, Liverpool to Colombo. Fourth Voyage.

Date.	Latitude.	Longitude.	Approximate Magnetic		Standard Compass (uncompensated).			Steering Compass (compensated).		
			Dip.	Variation.	Head by Compass.	Total Error.	Deviation.	Head by Compass.	Total Error.	Deviation.
1860.	° ′	° ′		° ′	°	° ′	° ′	°	° ′	° ′
July 21	41 49 N.	12 1 W.	...	24 0 W.	S. 35 W.	17 58 W.	+6 2	S. 54 W.	16 58 W.	+7 2
24	34 3	17 30	...	23 0 W.	S. 41 W.	17 26 W.	+5 34	S. 41 W.	17 26 W.	+5 34
28	25 41	23 19	...	20 20 W.	S. 1 W.	19 52 W.	+0 28	S. 3 W.?	21 52 W.	−1 32
	...	...	...	...	S. 24 W.	14 40 W.	+5 40	S. 22 W.	12 40 W.	+7 40
	...	...	...	...	S. 45 W.	12 56 W.	+7 24	S. 45 W.	12 56 W.	+7 24
	...	...	...	...	S. 66 W.	12 4 W.	+8 16	S. 67 W.	13 4 W.	+7 16
30	20 55	24 46	...	18 50 W.	N. 73 W.	14 20 W.	+4 30	N. 65 W.	21 50 W.	−3 0
	...	...	...	...	S. 86 W.	14 50 W.	+4 0	W.	18 50 W.	0 0
	...	...	...	...	S. 65 W.	15 37 W.	+2 13	S. 65 W.	15 37 W.	+3 13
	...	...	...	...	S. 46 W.	15 20 W.	+3 30	S. 44 30 W.	13 55 W.	+4 55
	...	...	...	...	S. 26 W.	15 45 W.	+3 5	S. 22 W.	11 45 W.	+7 5
	...	...	...	...	S. 2 W.	19 32 W.	−0 42	S.	17 32 W.	+1 18
	...	...	...	...	S. 23 E.	22 48 W.	−3 58	S. 23 E.	22 48 W.	−3 58
August 2	15 28	26 4	...	17 0 W.	S. 9 W.	16 18 W.	+0 42	S. 6 W.	13 18 W.	+3 42
	...	...	...	...	S. 4 E.	17 33 W.	−0 33	S. 6 E.	15 33 W.	+1 27
3	15 15	25 9	...	17 0 W.	S. 13 E.	19 30 W.	−2 30	S. by E.	18 0 W.	−1 0
9	5 27	16 29	...	19 0 W.	....	...	...	S.E. by S. ½ S.	21 9 W.	−2 9
10	4 29 N.	17 21	...	18 40 W.	...	...	...	W. ½ S.	20 47 W.	−2 7
23	20 27 S.	30 59	...	9 20 W.	S. 42 E.	14 52 W.	−5 32	S. 45 E.	11 52 W.	−2 32
	...	...	...	...	S. 25 E.	14 0 W.	−4 40	S. 25 E.	14 0 W.	−4 40
	...	...	...	...	S. 1 W.	12 50 W.	−3 30	S. 1 E.	10 20 W.	−1 0
	...	...	...	...	S. 38 W.	9 0 W.	+0 20	S. 33 W.	4 0 W.	+5 20
	...	...	...	...	S. 57 W.	6 15 W.	+3 5	S. 55 W.	4 15 W.	+5 5
	...	...	...	...	S. 88 W.	7 30 W.	+1 50	W.	9 30 W.	−0 10
	...	...	...	...	N. 71 W.	7 30 W.	+1 50	N. 65 W.	13 30 W.	−4 10
	...	...	...	...	N. 55 W.	6 0 W.	+3 30	N. 47 W.	14 0 W.	−4 40
	...	...	...	...	N. 6 W.	6 30 W.	+2 50	N.	12 30 W.	−3 10
	...	...	...	...	N. 23 E.	8 12 W.	+1 8	N. 25 E.	10 12 W.	−0 52
24	21 49 S.	30 10 W.	...	9 30 W.	S. 4 E.	13 0 W.	−3 30	S. 8 E.	9 0 W.	+0 30
28	28 42	27 44	...	„	S. 28 E.	13 56 W.	−4 26	S. 33 E.	8 56 W.	+0 34
	...	...	...	...	S. 58 E.	13 56 W.	−4 26	S. 63 E.	8 56 W.	+0 34
30	30 7	24 48	...	11 0 W.	S. 40 E.	16 57 W.	−5 57	S. 45 E.	11 57 W.	−0 57
Sept. 1	31 38	21 42	...	12 30 W.	S. 23 W.	19 9 W.	−6 39	S. 28 W.	14 9 W.	−1 39
3	35 0	14 7 W.	...	...	...	...	...	S.E.	19 0 W.	−3 15
14	40 44	24 6 E.	...	31 15 W.	S. 38 E.	39 49 W.	−8 34	S. 50 E.	27 49 W.	+3 26
20	41 2	32 40	...	31 20 W.	S. 45 E.	40 0 W.	−8 40	S. 62 E.	22 0 W.	+9 20
24	40 48	46 51	...	28 45 W.	N. 84 E.	36 12 W.	−7 27	S. 78 E.	17 32 W.	+11 13
Oct. 2	33 40	69 33	...	16 20 W.	N. 16 E.	11 0 W.	+5 20	N. 20 E.	15 0 W.	+1 0
3	30 18	70 12	...	14 0 W.	N. 10 W.	8 42 W.	+5 18	N.	18 42 W.	−4 42
4	28 29	68 51	...	12 45 W.	N. 34 W.	9 4 W.	+3 47	N. 20 W.	23 4 W.	−10 19
5	28 16	71 14	...	12 45 W.	N. 72 E.	13 30 W.	−0 45	N. 60 E.	1 30 W.	+11 15
8	26 44	75 30	...	10 0 W.	N. 7 E.	6 0 W.	+4 0	N. 11 E.	11 0 W.	−1 0
9	25 1	74 31	...	9 0 W.	N. 5 E.	8 14 W.	+0 46	N. 11 E.	14 14 W.	−5 14
10	22 0	75 44	...	6 30 W.	N. 7 E.	2 30 W.	+4 0	N. 12 E.	7 30 W.	−1 0
11	18 46	75 44	...	4 40 W.	N. 7 E.	0 30 W.	+4 10	N. 10 E.	3 30 W.	+1 0
12	14 59	75 34	...	3 15 W.	N. 2 E.	0 34 E.	+3 49	N. 6 E.	3 26 W.	−0 11
14	7 40	75 6	...	1 40 W.	N.	2 23 E.	+4 3	N. 5 E.	2 37 W.	−0 57
15	5 52	75 6	...	1 20 W.	N. 1 E.	2 58 E.	+4 18	N. 5 E.	1 2 W.	+0 18
16	2 59	75 24	...	0 50 W.	N. 2 E.	3 44 E.	+4 34	N. 5 E.	0 44 W.	+0 6

Before sailing from Liverpool on her fourth voyage, a short iron bar was placed before the steering compass of the "Advance," as shown in the sketch at page 17 of the Report. The vessel lay in dock with her head to the North, while loading, and no opportunity was afforded for trying the effect of the bar with her head to the East or West so as to fix the bar in its proper position, except so far as could be judged from temporarily placing the bar at different distances to the East and West of the binnacle and seeing what effect it produced. This was much regretted at the time, but the following letter from Captain Dalison will show that he acted both cautiously and skilfully under the circumstances, and that the position chosen for the bar was so near to the proper one that the maximum observed error of the steering compass was only 11° 13′, under circumstances in which it was formerly out three points and upwards.

(Copy.)

Ship "Advance," Colombo,
Oct. 29, 1860.

AR SIR,

ECEIVED your kind favour of August 30th on my arrival, and thank you much for the ell as for your kindness and attention before the ship sailed.

the bar before the compass to be most effectual in reducing the deviation; so much so, that I had but small opportunity for observation on account of rough weather, the deviation was nd regular as not to cause one any inconvenience. Of the few observations I have made copy.

down channel I removed the bar and placed the magnets in the old position, but on the , being a fine day, I replaced the bar, in lat. 44° 30′ N. and long. 10° W., and also turned the nd for end, placing the starboard one on the port side, and the port one on the starboard magnet on the starboard side being 15½ inches nearer the compass, and 1¼ inches raised leck; the port magnet being 10½ inches nearer the compass, but on the deck. Before I port I will take the magnets up again and place them as you wish, and if good opportunity ke the requisite observations. The "Advance" will partly load here and fill up at n for Liverpool or London, so that I do not expect to be absent so long as on my last In hopes that you will be satisfied with the few observations I have made,

I remain,
My dear Sir,
Yours faithfully,
(Signed) F. L. DALISON.

W. Rundell,
verpool.

"ASTRÆA," CAPTAIN SAMUEL NICKELS.

LIVERPOOL TO ISLE OF MAURITIUS AND BACK.

Long.	Heel. P. Port, S. Starboard	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Total Error.	Steering Compass. Deviation.
WITH TRANSVERSE MAGNET.						
h. West.						
2 30 23	..	−13 0	11 0W.	S. by E.	21 32 W.	10 32 W.
..	..	..	..	S.S.E.	16 20 W.	5 20 W.
2 28 42	..	−17 30	10 0W.	E. by S.	8 10 E.	18 10 E.
..	..	..	..	E.S.E.	0 16 E.	10 16 E.
..	..	..	..	S.E. by E.	0 32 W.	9 28 E.
..	..	..	..	S.E.	7 22 W.	2 38 E.
..	..	..	..	S.E. by S.	7 56 W.	2 4 E.
2 12 30	..	−38 0	16 20W.	N.E.	31 36 E.	47 56 E.
..	..	..	..	N.E. by E.	25 46 E.	42 6 E.
..	..	..	..	E.N.E.	21 34 E.	37 54 E.
..	..	..	..	E. by N.	15 12 E.	31 32 E.
..	..	..	..	East	13 58 E.	30 18 E.
..	..	..	..	E. by S.	10 40 E.	27 0 E.
..	..	..	..	S.S.E.	4 30 E.	20 50 E.
48 9 25 East.	..	−43 0	17 0W.	N.E. by E.	25 46 E.	42 46 E.
44 31 35	..	−60 0	31 0W.	N.E. by E.	37 20 E.	68 20 E.
5 33 39	..	−60 30	31 0W.	N.N.E.	76 50 E.	107 50 E.

Date.	Lat.	Long.	Heel. P. Port, S. Starboard	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Total Error.	Steering Compass. Deviation.
WITHOUT COMPENSATION.								
	South.	West.						
Aug. 1856 to Feb. 1857.	22 22	30 23	..	−13 0	11 0W.	E.S.E.	7 32 E.	18 32 E
	..	..	..	..	..	S.E. by E.	8 50 E.	14 50 E.
	..	..	..	..	..	S.E.	4 28 E.	15 28 E.
	..	..	..	..	..	S.E. by S.	2 28 W.	8 32 E.
	..	..	..	..	..	S.S.E.	5 54 W.	5 6 E.
	24 32	28 42	..	−17 30	10 0W.	East	12 0 E.	22 0 E.
	..	..	..	..	..	E. by S.	10 20 E.	20 20 E.
	..	..	..	..	..	E.S.E.	6 6 E.	16 6 E.
	..	..	..	..	.	S.E. by E.	5 48 E.	15 48 E.
	..	..	..	..	..	S.E.	4 32 E.	14 32 E.
	..	..	..	..	..	S.E. by S.	0 50 W.	9 10 E.
	..	..	..	..	..	S.S.E	0 10 W.	9 50 E.
	29 41	31 40	..	−24 0	6 20W.	East	13 0 E.	19 20 E.
	37 32	12 30	..	−38 0	16 20W	N.E.	12 10 E.	28 30 E.
	..	..	..	..	..	N.E. by E.	15 52 E.	32 18 E.
	..	..	..	..	..	E.N.E.	17 28 E.	33 48 E.
	..	..	..	..	..	E. by N.	17 34 E.	33 54 E.
	..	..	..	..	..	East	16 42 E.	33 2 E.
	..	..	..	..	..	E. by S.	7 3 E.	23 23 E.
	38 49	East. 39 23	..	−61 30	29 30W.	N.E.	26 22 E.	55 52 E.
	..	..	..	..	..	N.E. by E.	24 10 E.	53 40 E.
	40 5	33 39	..	−60 0	31 0W.	N.E. by E.	30 8 E.	61 8 E.
	37 44	43 38	..	−62 0	28 0W.	N.E. by E.	13 20 E.	41 20 E.
	36 30	48 18	..	−62 0	25 30W.	N.E. by E.	46 50 E.	72 20 E.
	35 23	45 20	..	−61 30	25 45W.	North	27 58 W.	2 13 W.
	33 44	57 38	..	−62 30	20 0W.	N. by E.	0 46 W.	19 14 E.
	..	..	..	..	..	N.N.E.	5 32 E	25 32 E.
	29 17	59 21	..	−60 0	16 15W.	N. by E.	9 20 W.	6 55 E.

"Astræa," Captain Samuel Nickels, Liverpool to Isle of Mauritius and back.

Date.	Latitude.	Longitude.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Total Error.	Steering Compass. Deviation.
1857.	North. ° ′	West. ° ′	°	° ′	West. ° ′		° ′	° ′
August 15	53 28	4 34	0	70	24 45	S.W. by S.	8 42 W.	16 3 E.
	...	...	,,	...	...	S.W.	8 0 W.	16 45 E.
	...	...	,,	...	...	S.W. by W.	10 12 W.	14 33 E.
17	49 39	8 36	2 S.	69	25 20	S.W. by S.	11 18 W.	14 2 E.
	...	...	,,	...	...	S.W.	13 4 W.	12 16 E.
19	47 23	10 56	,,	68 30	25 40	W.S.W.	18 6 W.	7 34 E.
	...	...	10 S.	...	...	S.S.W.	10 42 W.	14 58 E.
	...	...	2 S.	...	...	S.W.	13 2 W.	12 38 E.
	...	...	,,	...	...	S.W. by W.	14 20 W.	11 20 E.
20	45 2	12 42	0	67 30	25 20	S.W. by S.	11 0 W.	14 20 E.
21	42 45	13 56	...	66 30	24 40	S.W. by S.	10 56 W.	13 44 E.
22	40 40	14 18	5 S.	65 0	24 40	W. by N.	25 46 W.	1 6 W.
23	40 4	15 0	...	,,	,,	W.N.W.	23 34 W.	1 6 E.
24	37 40	15 49	0	64 0	23 40	N.	29 24 W.	5 44 W.
	...	...	...	...	...	E.	23 40 W.	0 0
	...	...	...	...	...	E. by S.	23 58 W.	0 18 W.
	...	...	...	...	...	E.S.E.	24 12 W.	0 32 W.
	...	...	...	...	...	S.E. by E.	24 24 W.	0 44 W.
	...	...	...	...	...	S.E.	21 32 W.	2 8 E.
	...	...	...	...	...	S.E. by S.	20 48 W.	2 52 E.
	...	...	...	...	...	N.W. by W.	28 40 W.	5 0 W.
	...	...	5 P.	...	...	N.W.	30 52 W.	7 12 W.
	...	...	,,	...	...	N.W. by N.	31 2 W.	7 22 W.
	...	...	,,	...	...	N.N.W.	31 8 W.	7 28 W.
	...	...	...	...	...	N. by W.	29 36 W.	5 56 W.
	...	...	...	...	...	S.W. by S.	9 48 W.	13 52 E.
	35 28	18 59	5 P.	63 0	23 40	N. by W.	28 50 W.	5 35 W.
30	31 31	19 48	0	60 30	23 15	N.	30 16 W.	7 1 W.
	...	...	...	...	...	N. by E.	28 24 W.	5 9 W.
	...	...	...	...	...	N.N.E.	25 36 W.	2 21 W.
	...	...	...	...	...	N.E by N.	24 14 W.	0 59 W.
	...	...	...	...	...	N.E.	21 54 W.	1 21 E.
	...	...	...	...	...	N.E. by E.	21 6 W.	2 9 E.
	...	...	...	...	...	E.N.E.	22 24 W.	0 51 E.
	...	...	...	...	...	E. by N.	22 30 W.	0 45 E.
	...	...	...	...	...	E.	23 58 W.	0 43 W.
	...	...	...	...	...	E. by S.	22 30 W.	0 45 E.
	...	...	...	...	...	E.S.E.	22 20 W.	0 55 E.
	...	...	...	...	...	S.E. by E.	20 28 W.	2 47 E.
	...	...	...	...	...	S.E. by S.	18 50 W.	4 25 E.
	...	...	...	...	...	S.E.	18 38 W.	4 37 E.
	...	...	...	...	...	S.S.E.	16 58 W.	6 17 E.
	...	...	...	...	...	S.W.	11 52 W.	11 23 E.
	31 39	19 50	0	60 30	23 15	S.W. by W.	14 30 W.	8 45 E.
	...	...	,,	...	...	W.S.W.	17 16 W.	5 59 E.
	...	...	,,	...	...	W. by S.	19 56 W.	3 19 E.
	...	...	,,	...	...	W.	21 44 W.	1 31 E.
	...	...	,,	...	...	S.S.E.	16 42 W.	6 18 E.
31	30 42	18 17	...	60 0	23 0	S.E. by S.	19 40 W.	3 20 E.
	...	...	...	...	...			
September 1	30 13	17 18	...	59 0	21 35	S. by E.	13 52 W.	7 43 E.
	...	...	...	...	...	S.	10 38 W.	10 57 E.
	...	...	...	...	...	S. by W.	9 52 W.	11 43 E.
	...	...	...	...	...	S.S.W.	9 8 W.	12 27 E.
4	23 33	21 17	0	54 0	20 0	S.W.	12 36 W.	7 24 E.
5	21 33	23 28	0	52 0	19 0	S.W. by W.	16 10 W.	2 50 E.
	...	...	,,	...	...	W.S.W.	19 50 W.	0 50 W.
	...	...	,,	...	...	W.	24 36 W.	5 36 W.
6	19 46	24 11	0	50 30	18 15	W. by S.	19 28 W.	1 13 W.
	...	...	,,	...	...	W.	22 25 W.	4 10 W.
	...	...	,,	...	...	S.S.W.	16 20 W.	1 55 E.
7	17 55	25 34	5 S.	48 0	17 30	S.	10 46 W.	6 44 E.
	...	...	...	...	...	S. by W.	9 52 W.	7 38 E.
8	16 31	25 37	...	47 0	17 15	S. by E.	8 30 W.	8 45 E.
10	13 22	25 58	0	43 0	16 30	S.E.	11 54 W.	4 36 E.
	...	...	,,	...	...	S.E. by S.	11 54 W.	4 36 E.
	...	...	,,	...	...	S.S.E.	10 56 W.	5 34 E.
	...	...	,,	...	...	S. by E.	10 4 W.	6 26 E.
11	12 54	26 45	0	43 0	16 20	S.	13 30 W.	2 50 E.
18	4 51	19 41	5 P.	...	...	S.E. by E.	12 40 W.	3 40 E.
20	3 47	17 36	5 P.	33 0	13 20	S.E. by E.	13 2 W.	0 18 E.
	4 1	17 2	5 S.	31 0	14 20	W. by S.	26 18 W.	11 58 W.
21	3 36	16 23	0	30 0	15 0	W.S.W.	23 28 W.	8 28 W.
	...	...	...	...	...	W.	24 26 W.	9 26 W.
	South.							
26	4 52	24 28	...	15 30	15 15	S.S.W.	13 22 W.	1 53 E.
28	11 23	24 52	5 S.	4 0	14 20	S.	10 28 W.	3 52 E.
29	13 11	24 57	5 S.	0	14 0	S. by W.	11 14 W.	2 46 E.
	...	...	,,	...	...	S.S.W.	14 4 W.	0 4 W.
October 4	25 35	29 5	,,	— 18 0	9 15	S. by E.	2 20 W.	6 55 E.
8	27 32	26 36	0	— 22 0	11 40	E.S.E.	0 18 W.	11 22 E.
10	28 8	24 50	0	— 24 0	11 0	E. by S.	7 40 E.	18 40 E.

"Astræa," Captain Samuel Nickels, Liverpool to Isle of Mauritius and back—*continued.*

Date.	Latitude.	Longitude.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Total Error.	Steering Compass. Deviation.
	South.	West.			West.			
1857.	° ′	° ′	°	° ′	° ′		° ′	° ′
October 17	32 3	6 12	...	— 36 30	22 0	S.S.W.	29 8 W.	7 8 W.
18	32 30	5 12	...	— 37 0	22 0	E. by S.	2 34 E.	24 34 E.
		East.						
20	34 0	2 45	0	— 44 0	25 20	E. by S.	0 40 W.	24 40 E.
November 8	36 2	19 43	5 P.	— 54 0	29 45	S.E.	4 16 E.	34 1 E.
9	37 6	21 8	0	— 55 30	30 15	N.N.W.	53 20 W.	23 5 W.
	...	...	,,	...	...	N. by W.	48 40 W.	18 25 W.
	...	...	,,	...	...	N.	42 6 W.	11 51 W.
10	38 8	21 12	...	— 56 0	30 20	S.S.E.	7 42 E.	38 2 E.
11	38 47	22 16	0	— 56 30	30 35	E.	12 20 E.	42 55 E.
	...	...	,,	...	...	E.N.E.	3 45 E.	34 20 E.
	...	...	,,	...	...	E. by N.	8 12 E.	38 47 E.
13	39 12	26 52	0	— 58 0	31 10	E. by N.	12 44 E.	43 54 E.
18	38 51	40 0	0	— 59 0	31 0	N.E. by E.	6 12 E.	37 12 E.
	...	...	,,	...	...	E.N.E.	10 24 E.	41 24 E.
21	37 4	49 27	0	— 62 30	25 45	N.E. by E.	14 26 E.	40 11 E.
29	23 13	59 9	0	— 56 30	11 40	N.	17 4 W.	5 24 W.
	...	...	,,	...	...	N. by W.	39 18 W.	27 38 W.
	...	...	,,	...	...	N.N.W.	27 18 W.	15 38 W.
	...	...	,,	...	...	N.W. by N.	42 8 W.	20 28 W.
				HOMEWARD.				
	22 32	55 7	...	— 55 0	12 30	W.	48 16 W.	35 46 W.
	...	...	...	...	...	W. by N.	53 24 W.	40 54 W.
	27 41	49 0	...	— 58 0	18 40	N.W.	61 32 W.	42 52 W.
	...	...	...	...	...	N.W. by N.	58 16 W.	39 36 W.
	30 34	15 40	...	— 50 0	29 0	N. by W.	45 2 W.	26 2 W.
		West.						
	17 27	5 24	...	— 30 30	23 0	N.W. by W.	45 28 W.	22 28 W.
	...	...	...	...	...	N.N.W.	39 32 W.	16 32 W.
	...	...	...	...	...	N. by W.	38 10 W.	15 10 W.
	15 42	7 27	...	— 13 0	23 30	N.	30 0 W.	6 30 W.
	2 26	27 9	0	+ 20 0	14 20	N.	21 26 W.	7 6 W.
	...	...	...	...	...	N. by W.	26 26 W.	12 6 W.
	0 38	28 28	...	25 0	13 30	N. by E.	17 56 W.	4 26 W.
	...	...	...	...	...	N.N.E.	13 54 W.	0 24 W.
	North.							
	15 30	39 35	...	47 30	15 20	N.W.	27 42 W.	12 22 W.
	...	...	...	...	...	N.W. by W.	28 18 W.	12 58 W.
	...	...	...	...	...	W.N.W.	26 10 W.	10 50 W.
	...	...	...	...	...	W. by N.	24 2 W.	8 42 W.
	...	...	0	...	...	W.	21 52 W.	6 32 W.
	15 36	39 40	...	50 0	10 15	N.E. by N.	5 6 W.	5 9 E.
	...	...	...	...	...	N.E.	2 56 W.	7 19 E.
	16 0	41 17	0	50 0	9 0	N. by E.	18 58 W.	9 58 W.
	...	...	0	...	...	N.N.E.	16 48 W.	7 48 W.
	17 53	38 18	...	51 30	11 15	N.	13 44 W.	2 29 W.
	...	...	...	...	...	N. by E.	12 52 W.	1 37 W.
	...	...	...	...	...	N.N.E.	10 2 W.	1 13 E.
	...	...	...	...	...	N.E. by N.	9 12 W.	2 3 E.
	...	...	...	...	...	N.E.	7 20 W.	3 55 E.
	...	...	...	...	...	N.N.W.	18 26 W.	7 11 W.
	...	...	...	...	...	N. by W.	16 38 W.	5 23 W.
	20 32	37 55	...	54 30	12 40	N.E. by E.	8 48 W.	3 52 E.
	...	...	...	...	...	E.N.E.	8 46 W.	3 54 E.
	...	...	...	...	...	E. by N.	10 4 W.	2 36 E.
	52 7	Off the Hook.	5 P.	70 0	26 0	N.E.	27 48 W.	1 48 W.
	...	,,	,,	...	...	N.E. by E.	30 36 W.	4 36 W.
	...	,,	,,	...	...	E.N.E.	33 48 W.	7 48 W.
				LIVERPOOL TO CALCUTTA.				
1858.	50 54	8 13	...	69 30	25 30	N.	28 18 W.	2 48 W.
	45 25	12 44	0	67 30	25 30	S.E.	24 22 W.	1 8 E.
	...	...	,,	...	...	S.E. by S.	21 34 W.	3 56 E.
	...	...	,,	...	...	S.S.E.	20 0 W.	5 30 E.
	...	...	,,	...	...	S. by E.	17 28 W.	8 2 E.
	...	...	,,	...	...	S.	15 46 W.	9 44 E.
	...	...	,,	...	...	S. by W.	15 4 W.	10 26 E.
	...	...	,,	...	...	S.S.W.	13 28 W.	12 2 E.
	...	...	,,	...	...	S.W. by S.	12 48 W.	12 42 E.
	...	...	,,	...	...	S.W.	14 46 W.	10 44 E.
	44 37	12 48	8 S.	67 15	25 0	N.	32 36 W.	7 36 W.
	...	...	5 S.	...	...	N. by E.	31 40 W.	6 40 W.
	...	...	,,	...	...	N.N.E.	31 52 W.	6 52 W.
	...	...	,,	...	...	N.E. by N.	30 48 W.	5 48 W.
	...	...	,,	...	...	N.E.	30 44 W.	5 44 W.
	...	...	8 S.	...	...	W.N.W.	25 24 W.	0 24 W.
	...	...	,,	...	...	N.W. by W.	28 2 W.	3 2 W.
	...	...	,,	...	...	N.W.	29 48 W.	4 48 W.
	...	...	,,	...	...	N.W. by N.	30 34 W.	5 34 W.
	...	...	,,	...	...	N.N.W.	33 22 W.	8 22 W.
	...	...	6 S.	...	...	N. by W.	33 8 W.	8 8 W.

"Astræa," Captain Samuel Nickels, Liverpool to Calcutta and back—*continued.*

Date.	Latitude.	Longitude.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Total Error.	Steering Compass. Deviation.
1858.	North. ° ′	West. ° ′	°	° ′	West. ° ′		° ′	° ′
	25 38	21 36	0	56 0	20 20	S.W.	9 0 W.	11 20 E.
	18 43	25 29	0	50 0	17 45	S.S.W.	8 8 W.	9 37 E.
	...	...	0	...	...	S.W. by S.	7 36 W.	10 9 E.
	15 45	25 45	5 S.	46 0	17 0	S.S.E.	6 54 W.	10 6 E.
	...	...	,,	...	...	S.	8 14 W.	8 46 E.
	4 23	23 43	4 S.	29 30	16 15	S.S.W.	9 26 W.	6 49 E.
	...	...	,,	...	...	S.W.	14 18 W.	1 57 E.
	5 14	24 0	5 S.	31 0	16 0	S.S.E.	21 4 W.	5 4 W.
	South.							
	1 19	27 13	,,	22 0	14 15	S.W. by W.	18 12 W.	3 57 W.
	7 54	31 20	7 S.	12 30	11 0	S.W. by S.	7 10 W.	3 50 E.
	9 19	32 7	0	10 0	10 20	N.	13 36 W.	3 16 W.
	...	...	,,	...	...	N. by E.	10 26 W.	0 6 W.
	...	...	,,	...	...	N.N.E.	6 14 W.	4 6 E.
	...	...	,,	...	...	N.E. by N.	3 32 W.	6 48 E.
	...	...	,,	...	...	N.E.	1 28 W.	8 52 E.
	...	...	,,	...	...	S.W.	9 24 W.	0 56 E.
	...	...	,,	...	...	S.W. by W.	11 14 W.	0 54 W.
	...	...	,,	...	...	W.S.W.	14 14 W.	3 54 W.
	...	...	,,	...	...	W. by S.	15 58 W.	5 38 W.
	...	...	,,	...	...	W.	17 50 W.	7 30 W.
	...	...	...	...	...	W. by N.	20 38 W.	10 18 W.
	...	...	...	...	...	W.N.W.	21 32 W.	11 12 W.
	...	...	...	...	...	N.W.	22 22 W.	12 2 W.
	...	...	...	...	...	N.W. by N.	22 10 W.	11 50 W.
	...	...	...	...	...	N.N.W.	19 58 W.	9 38 W.
	...	...	...	...	...	N. by W.	16 50 W.	6 30 W.
	15 52	32 52	5 S.	0	8 30	S.E. by E.	2 30 W.	6 0 E.
	...	...	,,	...	...	S.E.	4 24 W.	4 6 E.
	...	...	,,	...	...	S.E. by S.	6 50 W.	1 40 E.
	...	...	,,	...	...	S.S.E.	6 54 W.	2 36 E.
	...	...	,,	...	...	S. by E.	7 0 W.	1 30 E.
	...	...	,,	...	...	S.	8 14 W.	0 16 E.
	27 12	30 24	,,	— 21 0	7 45	E.	6 38 E.	14 23 E.
	...	...	,,	...	...	E. by S.	4 56 E.	12 41 E.
	...	...	,,	...	...	E.S.E.	3 14 E.	10 59 E.
	...	...	,,	...	...	S.E. by E.	1 20 E.	9 5 E.
		East.						
	35 37	76 50	0	— 65 30	17 0	N. by E.	11 22 W.	5 38 E.
	...	...	0	...	...	N.N.E.	2 22 E.	19 22 E.
	10 56	83 7	5 P.	— 39 0	1 20	N. by E.	1 46 E.	3 6 E.
	2 5	83 26	0	— 22 0	0 0	N.	1 58 E.	1 58 E.
	...	...	,,	...	...	N.N.E.	6 50 E.	6 50 E.
	...	...	,,	...	...	N.E.	13 44 E.	13 44 E.
	...	...	,,	...	...	E.N.E.	16 34 E.	16 34 E.
	...	...	,,	...	...	W.N.W.	6 54 W.	6 54 W.

HOMEWARD.

November 12	19 58	57 26	...	— 53 0	9 45	W.S.W.	34 50 W.	25 5 W.
	...	...	...	...	...	W.	39 44 W.	29 59 W.
30	23 6	55 33	...	— 55 30	12 45	W. by S.	41 42 W.	28 57 W.
December 1	24 12	54 34	...	— 56 0	14 0	W.N.W.	51 18 W.	37 18 W.
	...	...	...	...	...	N.W. by W.	49 12 W.	35 12 W.
	...	...	...	...	...	N.W.	46 18 W.	32 18 W.
7	28 20	41 48	...	— 57 30	22 30	N.W.	57 10 W.	34 40 W.
13	31 45	30 36	...	— 56 0	28 0	S.W. by S.	37 40 W.	9 40 W.
	...	...	...	...	...	S.W.	44 4 W.	16 4 W.
	...	...	...	...	...	S.W. by W.	50 34 W.	22 34 W.
	...	...	...	...	...	W.S.W.	57 40 W.	29 40 W.
	...	...	...	...	...	W. by S.	60 56 W.	32 56 W.
	...	...	...	...	...	W.	66 10 W.	38 10 W.
20	35 44	19 19	...	— 53 30	29 40	N.W. by N.	57 40 W.	28 0 W.
	...	...	...	...	...	N.N.W.	54 4 W.	24 24 W.
	...	...	...	...	...	N. by W.	43 16 W.	13 36 W.
21	34 22	16 26	...	— 52 30	29 20	N. by W.	40 6 W.	10 46 W.
1859.		West.						
January 9	0	29 16	...	+ 25 0	13 0	N. by E.	14 38 W.	1 38 W.
	...	...	...	...	...	N.N.E.	10 38 W.	2 22 E.
	North.							
19	16 24	37 17	...	50 0	11 15	N. by E.	3 54 W.	7 21 E.

"SIMLA." CAPTAIN W. WILLIAMS.

LIVERPOOL TO CALCUTTA. 1st Voyage.

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head by Compass.	Standard Compass. Total Error. Z. Azimuth. M. Amplitude.	Standard Compass. Deviation.	Steering Compass. Ship's Head, correct Magnetic.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation.
1858.	North. ° ′	West. ° ′	°		West. ° ′	°	° ′	° ′	°		° ′
Sept. 24	33 56	15 32	2 S.	...	22 30	S. 25 W.	*z* 7 12 W.	15 18 E.	...	...	...
	...	...	3 S.	...	...	S. 27 W.	*z* 5 54 W.	16 36 E.	...	...	...
	...	...	2 S.	...	...	S. 25 W.	*m* 7 6 W.	15 24 E.	...	...	...
26	27 56	19 39	0	...	21 10	S. 48 W.	*z* 7 30 W.	13 40 E.	...	...	...
27	25 26	21 36	0	...	20 30	S. 44 W.	*z* 9 54 W.	10 36 E.	...	...	...
	...	...	...	...	...	S. 37 W.	*m* 9 42 W.	10 48 E.	...	...	...
	...	...	...	...	...	S. 40 W.	*z** 9 39 W.	10 51 E.	...	...	...
	...	...	...	...	...	S. 42 W.	*z*) 10 0 W.	10 30 E.	...	...	...
28	23 38	22 49	0	...	20 0	S. 44½ W.	*z* 11 0 W.	9 0 E.	...	...	...
29	22 17	23 52	0	...	19 20	S. 40 W.	*z* 10 36 W.	8 44 E.	...	...	...
30	20 39	25 8	0	...	18 30	S. 46½ W.	*z* 10 20 W.	8 10 E.	...	...	...
Oct. 1	15 54	26 56	1 S.	...	17 0	S. 40 W.	*z* 7 39 W.	9 21 E.	...	...	...
2	15 16	28 37	5 S.	...	15 45	S. 30 W.	*z* 4 18 W.	11 27 E.	...	...	...
	...	...	...	...	...	S. 25 W.	*m* 4 0 W.	11 45 E.	...	...	...
3	13 29	29 5	0	...	15 0	S. 17 W.	*z* 4 48 W.	10 12 E.	...	...	...
4	11 24	29 26	3 S.	...	14 10	S. 12 W.	*z* 4 34 W.	9 36 E.	...	...	...
5	10 12	29 22	1 P.	...	14 0	S. 75 E.	*z* 12 45 W.	1 15 E.	...	...	...
6	8 44	28 38	5 S.	...	14 10	S. 5 E.	*z* 7 42 W.	6 28 E.	...	...	...
7	7 2	28 54	...	...	13 40	S. 5 E.	*z* 7 12 W.	6 28 E.	...	...	...
	...	...	...	...	...	S. 17 E.	*m* 11 0 W.	2 40 E.	...	...	...
8	6 41	29 7	...	...	13 30	S. 75 W.	*z* 12 15 W.	1 15 E.	...	...	...
9	5 46	30 44	0	...	12 40	N. 62 30 W.	*z* 23 0 W.	10 20 W.	...	...	...
	...	...	...	...	...	N. 61 W.	*z* 23 30 W.	10 50 W.	...	...	...
	...	...	...	...	...	N. 45 W.	*z* 27 30 W.	14 50 W.	...	...	...
	...	...	2 S.	...	...	S. 42 W.	*z** 0 4 W.	12 36 E.	...	...	...
11	4 30	31 28	0	...	12 10	S. 42 E.	*z* 12 33 W.	0 23 W.	...	...	...
	...	...	...	...	...	N. 47 E.	*z* 13 2 W.	0 52 W.	...	...	...
	...	...	...	...	...	N. 50 E.	*z* 12 0 W.	0 10 E.	...	...	...
	...	...	...	...	...	N. 79 W.	*z* 13 0 W.	0 50 W.	...	...	...
12	4 32	30 28	3 P.	...	12 10	S. 48 E.	*z* 12 41 W.	0 31 W.	...	...	...
14	3 44	39 20	0	...	13 10	S. 5 E.	*z* 6 19 W.	6 41 E.	...	...	...
	...	...	...	...	...	N. 54 W.	*z* 14 16 W.	1 6 W.	...	...	...
15	3 25	29 22	1 P.	...	13 10	S. 76 E.	*z* 13 40 W.	0 30 W.	...	...	...
	...	...	6 P.	...	...	S. 45 30 E.	*z* 14 50 W.	1 40 W.	...	...	...
16	2 30	29 0	3 S.	...	13 15	S. 81 W.	*z* 14 10 W.	0 55 W.	...	...	...
17	0 54	30 50	6 S.	...	12 0	S. 40 W.	*z* 2 57 W.	9 3 E.	...	...	...
	South.										
18	2 0	32 20	10 S.	...	11 0	S. 23 W.	*m* 1 30 W.	9 30 E.	...	...	...
	...	...	10 S.	...	...	S. 12 W.	*z* 0 8 E.	11 8 E.	...	...	...
	...	...	...	...	...	S. 7 W.	*m* 2 42 W.	8 18 E.	...	...	...
20	7 2	34 2	5 S.	...	9 30	S. 7 W.	*z* 2 1 W.	6 29 E.	...	...	...
21	9 33	34 47	3 S.	...	8 50	S. 7 E.	*z* 3 0 W.	5 50 E.	...	...	...
22	12 12	34 44	4 S.	...	8 15	S. 18 30 E.	*z* 4 56 W.	3 19 E.	...	...	...
	...	...	...	...	...	S. 29 E.	*m* 6 0 W.	2 15 E.	...	...	...
23	13 49	33 32	5 S.	...	8 30	S. 26 E.	*z* 4 36 W.	3 54 E.	...	...	...
	...	...	2 S.	...	,,	S. 24 E.	*m* 7 0 W.	1 30 E.	...	...	...
24	16 8	32 38	0	...	8 45	S. 26 E.	*z* 6 14 W.	2 31 E.	...	...	...
26	18 37	34 16	7 S.	...	7 15	S. 21 W.	*z* 2 24 E.	9 39 E.	...	...	...
27	21 19	34 30	5 S.	...	6 30	S. 5 E.	*z* 0 33 E.	7 3 E.	...	...	...
28	24 32	33 59	5 S.	...	6 15	S. 22 30 E.	*z* 1 50 W.	4 25 E.	...	...	...
29	27 33	32 25	3 S.	...	6 20	S. 25 E.	*z* 4 45 W.	1 35 E.	...	...	...
30	28 39	30 43	0	...	7 20	N. 6 E.	*z* 13 45 W.	6 25 W.	N. 0 25 W.	North	0 25 W.
	...	...	0	...	...	N. 31 E.	*z* 8 22 W.	1 2 W.	N. 29 58 E.	N. 24 E.	5 58 E.
	...	...	1 P.	...	...	N. 54 E.	*z* 8 28 W.	1 8 W.	N. 52 52 E.	N. 44 E.	8 52 E.
	...	...	1 P.	...	...	N. 63 E.	*z* 5 0 W.	2 20 E.	N. 60 40 E.	N. 54 E.	6 40 E.
	...	...	4 P.	...	...	S. 86 E.	*z* 8 42 W.	1 22 W.	S. 87 22 E.	N. 83 E.	9 38 E.
	...	...	4 P.	...	...	S. 58 E.	*z* 9 2 W.	1 42 W.	S. 59 42 E.	S. 66 E.	6 18 E.
Nov. 2	29 56	26 40	1 P.	...	10 0	S. 14 E.	*z* 6 6 W.	3 54 E.	S. 10 6 E.	S. 12 E.	1 54 E.
	...	...	2 S.	...	...	South	*z* 1 53 W.	8 7 E.	S. 8 7 W.	S. 10 W.	1 53 W.
1	28 40	26 15	2 S.	...	10 30	S. 20 W.	*z* 2 5 W.	8 25 E.	S. 28 25 W.	S. 35 W.	6 35 W.
	...	...	3 S.	...	...	S. 45 W.	*z* 3 16 W.	7 14 E.	S. 52 14 W.	S. 63 W.	10 46 W.
	...	...	2 S.	...	...	S. 67 30 W.	*z* 6 41 W.	3 49 E.	S. 71 19 W.	S. 83 W.	11 41 W.
	...	...	2 S.	...	...	West	*z* 13 13 W.	2 43 W.	S. 87 17 W.	N. 79 W.	13 43 W.
	...	...	4 S.	...	...	N. 75 W.	*z* 19 13 W.	8 43 W.	N. 83 43 W.	N. 68 W.	15 43 W.
Oct. 30	28 39	30 43	3 S.	...	7 20	N. 48 W.	*z* 18 36 W.	11 16 W.	N. 59 16 W.	N. 48 W.	11 16 W.
	...	...	2 S.	...	...	N. 22 W.	*z* 17 58 W.	10 38 W.	N. 32 38 W.	N. 25 W.	7 38 W.

Note.—All the Azimuths were observed by me on the standard compass, and the Altitudes by the 2d mate. The 1st mate noted the ship's head by the steering compass. The steering compass was accurately compensated at Liverpool by magnets, but is now out on some points more than a point.

Nov. 6	35 0	17 6	2 P.	...	14 0	S. 61 E.	*z* 16 5 W.	2 5 W.	...	...	...
	..	...	2 P.	...	...	S. 44 30 W.	*z* 15 30 W.	1 30 W.	...	...	...
7	35 21	14 48	1 S.	...	15 30	S. 59 30 E.	*z* 16 36 W.	1 6 W.	...	...	...
8	36 47	10 55	2 S.	...	17 30	S. 51 0 E.	*z* 16 54 W.	0 36 E.	...	...	...
9	38 5	7 55	0	...	18 30	S. 40 E.	*z* 19 22 W.	0 52 E.	...	...	...
	38 35	6 43	4 P.	...	19 45	S. 45 E.	*z* 18 32 W.	1 13 W.	...	...	...
		East.									
13	42 27	6 5	The steering compass is out 2¼ points. A very heavy sea carried away the binnacle containing								
14	42 38	16 0	the steering compass, the skylight, and the companion doors. The ship has to be steered by the companion compass on the skids until the gale abates.								

"Simla," Captain W. Williams, Liverpool to Calcutta, 1st Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head by Compass.	Standard Compass. Total Error. Z. Azimuth. M. Amplitude.	Standard Compass. Deviation.	Steering Compass. Ship's Head, correct Magnetic.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation.
1858.	South. ° ′	East. ° ′	°		West. ° ′	°	° ′	° ′			
Nov. 15	42 52	19 16	0	...	29 50	S. 51 E.	*z* 27 25 W.	2 25 E.	Took off all the magnets from the steering compass, which reduced its error from 2½ points to ½ point on the S.E. course.		
	...	...	...	...	...	S. 45 E.	*m* 29 42 W.	0 8 E.			
16	43 31	22 13	0	...	31 0	S. 49 30 E.	*z* 30 57 W.	0 3 E.	...	...	...
17	44 22	28 59	6 S.	...	32 15	S. 58 E.	*z* 32 54 W.	0 53 W.	...	...	...
21	43 26	47 19	0	...	30 15	S. 75 E.	*m* 31 19 W.	1 4 W.	...	...	...
24	41 48	61 16	...	...	26 0	S. 84 E.	*z* 28 6 W.	2 6 W.	...	...	...
29	35 3	82 17	2 P.	...	16 0	N. 57 E.	*z* 15 31 W.	0 29 E.	...	...	...
						Ship's Head by Steering Compass.		Deviation.		Ship's Head by Steering Compass.	Deviation.
						°		° ′			° ′
Dec. 2	The following are the deviations of the steering compass compared with the standard compass, which is very nearly correct. Without the compensating magnets.					N. 2 E.		7 0 W.		West	18 30 W.
						N. 10 E.		4 0 W.		N. 84 W.	18 30 W.
						N. 23 E.		0 30 W.		N. 72 W.	20 45 W.
						N. 32 E.		4 30 E.		N. 63 W.	24 0 W.
						N. 49 E.		10 30 E.		N. 49 W.	26 0 W.
						N. 74 E.		15 0 E.		N. 38 W.	28 30 W.
						*N. 81 E.		13 45 E.		N. 29 W.	27 0 W.
						S. 78 E.		12 0 E.		N. 20 W.	18 0 W.
						S. 68 E.		10 0 E.		N. 5 W.	14 30 W.
3	21 59	84 51	Put in the magnets for steering compass, reversing their poles; the following are the deviations observed under different degrees of heel, and depending on the deviations obtained for standard compass, off Tristan D'Acunha, but it is rather singular that the deviation on N. 81 E. is nearly the same as when the ship was swung at Liverpool, only of a contrary name, East for West.							N. 20 W.	2 0 W.
										N. 34 W.	1 30 W.
										N. 54 W.	0 30 E.
										N. 88 W.	3 0 W.
										N. 16 E.	0 53 W.
										N. 24 E.	0 20 E.
										N. 43 E.	1 21 W.
										N. 62 30 E.	3 44 E.
4	18 41	84 38	5 P.	...	4 0	N. 16 30 E.	*z* 9 43 W.	5 43 W.	...	...	...
	17 14	84 55	5 P.	...	3 0	N. 23 0 E.	*z* 7 6 W.	4 6 W.	...	...	...
	...	...	7 P.	...	...	N. 20 0 E.	*m* 9 6 W.	6 6 W.	...	...	...
5	14 39	85 20	4 P.	...	2 0	N. 16 0 E.	*m* 7 1 W.	5 1 W.	...	...	...
6	12 0	85 50	4 P.	...	1 30	N. 26 E.	*z* 3 19 W.	1 49 W.	...	...	...
	11 30	86 4	5 P.	...	1 15	N. 25 30 E.	*m* 3 30 W.	2 15 W.	...	...	...
	The upper end of all upright iron attracts the south end of a small compass, and the lower end repels the same. The top of the ship's side plates also attract the south.										
7	9 0	86 50	0	...	0 45	N. 24 30 E.	*z* 1 48 W.	1 3 W.	...	...	...
	...	...	3 P.	...	...	N. 43 30 E.	*z* 0 13 W.	0 32 E.	...	...	...
	...	...	4 P.	...	...	N. 62 30 E.	*z* 0 52 E.	1 37 E.	...	...	...
	...	...	0	...	...	N. 30 0 W.	*z* 7 55 W.	7 10 W.	...	...	...
8	6 24	87 30	1 P.	...	0	N. 21 30 E.	*z* 2 36 W.	2 36 W.	...	...	...
	...	...	0	...	0	N. 7 0 W.	*z* 7 6 W.	7 6 W.	...	...	...
	...	...	0	...	...	N. 19 W.	*z* 9 15 W.	9 15 W.	...	...	...
	...	...	0	...	...	N. 46 W.	*z* 7 23 W.	7 23 W.	...	...	...
9	5 33	87 19	0	...	0	N. 27 E.	*z* 2 28 W.	2 28 W.	...	...	...
	...	...	...	...	...	N. 89 E.	*z* 0 55 W.	0 55 W.	...	...	...
	...	...	...	...	...	S. 65 E.	*z* 2 12 E.	2 12 E.	...	...	...
					East.						
10	4 34	88 1	0	...	0 15	N. 14 30 E.	*m* 1 0 W.	1 15 W.	...	...	...
14	0 31	92 40	0	...	1 0	N. 1 30 W.	*z* 3 14 W.	4 14 W.	N. 5 40 W.	N. 3 0 W.	2 44 W
	...	...	...	...	...	N. 15 30 W.	*z* 6 8 W.	7 8 W.	N. 22 38 W.	...	...
	...	...	...	...	...	N. 35 0 W.	*z* 8 2 W.	9 2 W.	N. 44 2 W.	N. 40 0 W.	4 2 W
	...	...	...	...	...	N. 51 30 W.	*z* 7 23 W.	8 23 W.	N. 59 53 W.	N. 59 0 W.	0 53 W
	...	...	...	...	...	N. 73 0 W.	*z* 2 51 W.	3 51 W.	N. 76 51 W.	N. 84 0 W.	7 9 E.
	...	...	...	...	...	S. 84 0 W.	*z* 2 0 E.	1 0 E.	S. 85 0 W.	S. 78 0 W.	7 0 E.
	...	...	...	...	...	S. 44 W.	*z* 7 46 E.	6 46 E.	S. 50 46 W.	S. 44 30 W.	6 16 E.
	...	...	...	...	...	S. 23 W.	*z* 7 33 E.	6 33 E.	S. 29 33 W.	S. 25 0 W.	4 33 E.
	...	...	...	...	...	South	*z* 4 24 E.	3 24 E.	S. 3 24 W.	S. 1 W.	2 24 E.
	...	...	...	...	...	S. 15 E.	*z* 2 0 E.	1 0 E.	S. 14 0 E.	S. 10 20 E.	3 30 W
	...	...	...	...	...	S. 56 30 E.	*z* 0 3 W.	1 3 W.	S. 57 33 E.	S. 53 0 E.	4 33 W
	...	...	...	...	...	East	*z* 0 57 W.	1 57 W.	N. 88 3 E.	S. 89 0 E.	2 57 W
	...	...	...	...	...	N. 72 30 E.	*z* 0 51 E.	0 9 W.	N. 72 21 E.	N. 73 0 E.	0 39 W
	...	...	...	...	...	N. 45 0 E.	*z* 0 58 E.	0 2 W.	N. 44 58 E.	N. 47 0 E.	2 2 W
	...	...	...	...	...	N. 22 0 E.	*z* 0 41 W.	1 41 W.	N. 20 19 E.	N. 23 0 E.	1 41 W

These azimuths were taken under the most favourable circumstances, the sea smooth, with just air enough to work the shi round on her keel. The longitude found from each altitude as a check on the work. They show considerable decrease in th deviations of the standard compass. The comparison of the steering compass with the standard is after having altered the magnet on the 2d instant, in Lat. 26 S., Long. 85 E., when I put them in end for end to what they were in Liverpool. I find it necessar in low latitudes to remove the magnets further off from the compass to obtain correct compensation. I think a scale could b fixed for moving them that would always preserve the compass in its true direction in different magnetic latitudes; changing th magnets end for end when the south end dips or the contrary. Although I do not consider it safe to be always meddling wit the magnets, especially when near land, for myself I would rather keep them something near the mark while in the open sea, an find the deviations before coming in with the land, as I find it very bewildering to have the steering compass much out when th wind is flying about, and it is necessary to know in an instant on which tack to put the ship to go her course or the nearest cours to it. I hope those who read these notes, and know better than I do, will excuse my rude way, and, perhaps, erroneous opinions o this, to me, a new thing that I never practised before this voyage.

W. Williams.

* With 10° starboard heel.

"Simla," Captain W. Williams, Liverpool to Calcutta, 1st Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic		Standard Compass.			Steering Compass.		
				Dip.	Variation.	Ship's Head by Compass.	Total Error. Z. Azimuth. M. Amplitude.	Deviation.	Ship's Head, correct Magnetic.	Ship's Head by Compass.	Deviation.
	North.	East.			East.						
1858.	° ′	° ′	°		° ′	° ′	° ′	° ′	° ′	° ′	° ′
. 17	8 29	91 5	...	...	1 0	N. 11 30W.	*m* 3 45 W.	4 45 W.	...	...	...
18	1 50	90 31	2 S.	...	1 0	N. 12 30 E.	1 19 W.	2 19 W.	...	...	...
21	5 18	91 22	4 P.	...	1 20	N. 40 W.	4 7 W.	5 27 W.	...	...	...
22	6 39	90 54	8 S.	...	1 20	N. 85 0 E.	2 13 E.	0 53 E.	...	...	...
24	9 42	90 24	4 P.	...	1 35	N. 11 W.	2 2 W.	3 37 W.	...	...	...
	...	...	6 P.	...	„	N. 34 30 W.	3 7 W.	4 42 W.	...	...	...
25	12 19	88 27	8 P.	...	„	N. 33 0 W.	4 7 W.	5 42 W.	...	...	...
26	14 46	87 14	4 S.	...	1 40	S. 75 30 E.	*z* 0 12 E.	1 28 W.	...	...	...
27	16 7	86 25	3 P.	...	1 45	N. 31 30 W.	5 43 W.	7 28 W.	...	...	...
	The upper edge of top sheer plate on starboard side from aft to mainmast attracts the north point of a small compass strongly, but on the port side it is not so strong. The upper ends of iron stanchions and davits attract the North and repel the South point.										
28	16 22	87 25	7 S.	...	1 45	S. 53 0 E.	*m* 1 12 W.	2 57 W.	...	...	...
	...	...	4 P.	...	...	N. 13 0 W.	*z* 1 36 W.	3 21 W.	...	...	...
	I find the steering compass getting out as we draw to the northward up the Bay of Bengal. Greatest error 9°. Changed the magnet for North Latitude end for end. Reduced the error to 3° at greatest.										
30	18 13	88 3	3 P.	...	2 0	N. 20 W.	*m* 4 30 W.	6 30 W.	...	...	...

FROM CALCUTTA TO DEMERARA.

1859.	North.	East.			East.						
r. 11	18 54	91 28	0	...	2 10	South	*z* 8 8 E.	5 58 E.	...	...	...
13	17 26	91 11	0	...	...	S. 6 W.	*z* 8 11 E.	6 1 E.	...	...	...
14	16 19	91 17	0	...	2 0	S. 21 W.	5 54 E.	3 54 E.	...	...	...
	...	...	...	...	...	S. 7 W.	*m* 5 0 E.	3 0 E.	...	...	...
15	15 14	91 42	0	...	2 0	S. 27 W.	8 59 E.	6 59 E.	...	...	...
16	14 18	91 33	0	...	2 0	S. 19 W.	7 47 E.	5 47 E.	...	...	...
19	10 28	90 12	0	...	1 40	S. 14 W.	*z* 7 55 E.	6 15 E.	...	...	...
20	8 28	88 30	6 S.	...	1 20	S. 1 E.	*z* 7 6 E.	5 46 E.	...	...	...
24	3 34	86 6	4 S.	...	1 0	S. 8½ E.	4 42 E.	4 42 E.	...	...	...
25	3 24	86 13	0	...	1 0	N. 1 30W.	*z* 4 30 W.	5 30 W.	...	...	...
	...	...	...	...	...	N. 21 30W.	7 7 W.	8 7 W.	...	...	...
	...	...	...	...	...	N. 45 0W.	8 13 W.	9 13 W.	...	...	...
	...	...	...	...	...	N. 64 0W.	5 48 W.	6 48 W.	...	...	...
	...	...	...	...	...	N. 80 0W.	1 50 W.	2 50 W.	...	...	...
	...	...	...	...	...	S. 79 30W.	0 38 E.	0 22 W.	...	...	...
	...	...	...	...	...	S. 60 0W.	4 40 E.	3 40 E.	...	...	...
	...	...	...	...	...	S. 35 0 E.	0 40 W.	1 40 W.	...	...	...
	...	...	...	...	...	S. 57 0 E.	0 10 W.	1 19 W.	...	...	...
	...	...	...	...	...	N. 52 0 E.	2 40 E.	1 40 E.	...	...	...
	...	...	...	...	...	N. 43 0 E.	2 34 E.	1 34 E.	...	...	...
27	1 20	87 27	0	...	0 40	S. 24 E.	1 39 E.	0 59 E.	...	...	...
	...	...	...	...	...	S. 1 W.	3 16 E.	2 36 E.	...	...	...
	...	...	...	...	...	S. 24 30W.	7 47 E.	7 7 E.	...	...	...
	...	...	...	...	...	S. 43 30W.	6 20 E.	5 40 E.	...	...	...
	South.										
29	0 40	89 9	0	...	0 35	S. 49 E.	0 45 E.	0 10 E.	The steering compass is compensated with magnets, and is gradually increasing its deviations as we sail South. The standard compass, without magnets, retains the deviations found at sea nearly.		
	...	...	0	...	...	N. 56 E.	3 1 E.	2 26 E.			
	...	...	0	...	...	N. 24 E.	1 26 E.	0 51 E.			
	...	...	2 P.	...	...	N. 85 E.	1 49 E.	1 14 E.			
	...	...	2 P.	...	...	S. 76 E.	1 0 E.	0 25 E.			
30	1 24	89 50	4 S.	...	0 40	S. 36 W.	6 51 E.	0 40 E.			
pril 2	3 58	88 13	2 S.	...	0 10	S. 13 30W.	5 27 E.	5 17 E.			
4	6 0	87 7	3 S.	...	0	S. 26 W.	7 30 E.	7 30 E.	...	...	...
					West.						
6	8 18	85 23	4 S.	...	0 40	S. 20 W.	6 18 E.	6 58 E.	...	...	...
8	11 1	82 7	4 S.	...	1 30	S. 35 W.	8 14 E.	9 44 E.	...	...	...
10	13 13	78 21	10 S.	...	2 30	S. 68 30W.	...	...	...	S. 80 W.	...
	...	...	8 S.	...	...	S. 56 30W.	...	...	...	S. 67 W.	...
	...	...	4 S.	...	...	S. 60 30W.	...	...	...	S. 70 W.	...
11	15 31	75 35	7 S.	...	3 30	S. 58 0W.	1 7 W.	2 23 E.	...	S. 67 W.	6 27 W.
	...	...	0	...	...	S. 59 W.	...	...	...	S. 66 W.	...
	...	...	5 S.	...	...	S. 61 W.	...	...	...	S. 72 30W.	...
	...	...	6 S.	...	...	S. 66 30W.	...	...	...	S. 77 30W.	...
	...	...	6 S.	...	...	S. 69 W.	...	...	...	S. 79 W.	...
12	16 13	71 25	6 S.	...	...	S. 86½ W.	...	...	...	N. 86 30W.	...
	...	...	6 S.	...	...	S. 84 W.	...	...	...	N. 88 W.	...
	...	...	6 S.	...	...	S. 77 30W.	...	...	...	S. 86 30W.	...
	...	...	6 S.	...	...	S. 79 30W.	...	...	...	West	...
13	17 3	67 14	4 S.	...	...	S. 75 0W.	...	...	...	S. 86 0W.	...
	...	...	4 S.	...	...	S. 81 30W.	...	...	...	N. 88 0W.	...
14	17 59	64 34	0	...	6 30	S. 56 0W.	1 42 W.	4 48 E.	S. 60 48W.	S. 71 0W.	10 18 W.
	...	...	0	...	...	S. 72 0W.	...	...	...	S. 83 30W.	...
15	18 45	62 32	3 P.	...	...	S. 65 0W.	...	...	...	S. 78 0W.	...
	...	...	...	...	...	S. 57 30W.	...	...	...	S. 73 0W.	...
	...	...	...	...	...	S. 54 0W.	...	...	...	S. 70 0W.	...
	...	...	...	...	...	S. 44 30W.	...	...	...	S. 61 30W.	...
16	19 28	61 28	0	...	...	S. 48 30W.	...	...	...	S. 59 0W.	...
	...	...	2 P.	...	...	S. 49 0W.	...	...	...	S. 66 W.	...
	...	...	0	...	...	S. 56 0W.	...	...	...	S. 71 W.	...
17	20 8	60 29	0	...	...	S. 55 30W.	...	...	...	S. 70 W.	...
	...	...	0	...	...	S. 57 30W.	...	...	...	S. 72 W.	...
	...	...	1 P.	...	...	S. 46 0W.	...	...	...	S. 64 W.	...
	...	...		...	...	S. 68 30W.	...	...	...	S. 84 W.	...

"Simla," Captain W. Williams, Calcutta to Demerara, 1st Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head, by Compass.	Standard Compass. Total Error. Z. Azimuth. M. Amplitude.	Standard Compass. Deviation.	Steering Compass. Ship's Head, correct Magnetic.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation.
1859.	South. ° ′	East. ° ′	°		West. ° ′	° ′	° ′	° ′	° ′	° ′	
April 18	20 57	58 54	0	...	...	S. 64 W.	...	...	...	S. 80 W.	...
	...	...	5 S.	...	...	S. 59 30W.	...	...	...	S. 74 W.	...
	...	...	3 S.	...	...	S. 59 0W.	...	...	...	S. 75 30W.	...
	...	...	4 S.	...	...	S. 65 0W.	...	...	...	S. 81 0W.	...
19	22 27	56 27	8 S.	...	...	S. 58 W.	...	...	...	S. 75 0W.	...
20	23 53	53 49	0	...	...	S. 61 W.	...	...	...	S. 78 W.	...
21	25 8	52 11	0	...	...	S. 59 W.	...	...	...	S. 78 W.	...
	...	...	0	...	...	S. 69 W.	...	...	...	S. 87 W.	...
	...	...	0	...	19 20	S. 63 30W.	9 5 W.	10 15 E.	S. 73 45W.	S. 83 W.	9 15 W.
23	26 34	46 51	8 S.	...	,,	S. 74 0W.	16 49 W.	2 31 E.	S. 76 31W.	S. 92 0W.	14 29 W.
	...	...	...	...	...	N. 81 30W.	...	...	...	N. 67 0W.	...
24	27 27	42 43	4 S.	...	...	N. 76 30W.	...	...	...	N. 62 0W.	...
	...	...	2 S.	...	...	N. 82 0W.	...	...	...	N. 68 0W.	...
	...	...	4 S.	...	21 15	S. 85 0W.	22 32 W.	1 17 W.	S. 84 43W.	S. 100 0W.	15 17 W.
26	29 12	39 11	4 S.	...	24 0	N. 47 0W.	*m* 33 0 W.	9 0 W.	N. 56 0W.	N. 38 0W.	18 0 W.
	...	...	0	...	...	S. 84 30W.	*z* 23 42 W.	0 18 E.	S. 84 48W.	S. 103 30W.	18 42 W.
	...	...	0	...	...	N. 39 0W.	27 55 W.	3 55 W.	N. 42 55W.	N. 31 0W.	11 55 W.
	...	...	3 S.	...	...	N. 32 0W.	27 49 W.	3 49 W.	N. 35 49W.	N. 31 30W.	4 19 W.
	...	...	4 S.	...	...	N. 19 30 E.	31 22 W.	7 22 W.	N. 12 8 E.	N. 12 0 E.	0 8 E.
	...	...	4 S.	...	...	N. 24 30W.	38 51 W.	14 51 W.	N. 39 21W.	N. 19 0W.	20 21 W.
	29 0	38 50	10 S.	...	...	N. 64 30W.	*m* 29 30 W.	5 30 W.	N. 70 0W.	N. 52 0W.	18 0 W.
	...	...	4 S.	...	...	North	35 5 W.	11 5 W.	N. 11 5W.	N. 1 0 E.	12 5 W.
27	28 50	36 29	4 S.	...	...	N. 87 0W.	...	...	...	N. 72 0W.	...
29	31 16	32 9	2 S.	...	...	N. 72 0W.	...	...	...	N. 61 0W.	...
30	32 0	31 0	0	...	28 0	S. 75 0W.	...	...	...	S. 93 0W.	...
	...	...	...	...	...	S. 72 30W.	22 49 W.	5 11 E.	S. 77 41W.	S. 90 0W.	12 19 W.
May 1	33 10	29 4	2 S.	...	...	S. 63 0W.	...	...	...	S. 80 0W.	...
	33 43	...	2 S.	...	29 15	S. 63 0W.	24 37 W.	4 38 E.	S. 67 38W.	S. 80 0W.	12 22 W.
2	35 18	25 49	2 P.	...	...	N. 48 0W.	...	...	...	N. 43 0W.	...
	35 28	...	2 P.	...	...	N. 38 0W.	...	...	...	N. 34 0W.	...
3	35 10	22 22	8 S.	...	29 45	N. 45 0W.	38 44 W.	8 59 W.	N. 54 0W.	N. 35 0W.	19 0 W.
	35 45	...	10 P.	...	,,	N. 46 0W.	...	...	...	N. 36 W.	...
4	35 48	19 55	5 P.	...	29 50	S. 25 W.	19 44 W.	10 6 E.	S. 35 6W.	S. 38 W.	2 54 W.
	...	...	10 S.	...	...	N. 12 W.	37 36 W.	7 46 W.	N. 19 46W.	N. 8 W.	11 46 W.
5	35 45	...	4 S.	...	...	N. 22 E.	...	...	...	N. 22 E.	...
6	34 59	17 46	0	...	29 30	N. 9 W.	38 18 W.	8 48 W.	...	...	...
	...	...	4 S.	...	...	N. 15 W.	...	...	...	N. 10 W.	...
	...	...	0	...	...	N. 11 W.	41 42 W.	12 12 W.	...	...	...
	...	...	...	...	...	N. 6 W.	...	...	...	N. 8 W.	...
7	32 47	14 43	0	...	29 0	N. 11 W.	...	...	...	N. 12 W.	...
	...	...	...	...	...	N. 12 W.	...	...	...	N. 12 W.	...
	...	...	...	...	...	N. 17 W.	...	...	...	N. 18 W.	...
	...	...	...	...	...	N. 14 W.	...	...	...	N. 15 W.	...
8	30 18	11 26	0	...	28 30	N. 11 30W.	...	...	...	N. 10 W.	...
	...	...	...	...	...	N. 11 30W.	...	...	...	N. 15 W.	...
	...	...	...	...	...	N. 8 30W.	40 34 W.	12 4 W.	N. 20 34W.	N. 11 W.	9 34 W.
	...	...	...	...	...	N. 15 0W.	...	...	...	N. 18 W.	...
	...	...	...	...	...	N. 14 W.	...	...	...	N. 15 30W.	...
9	28 13	8 2	0	...	...	N. 18 W.	...	...	...	N. 17 W.	...
	...	...	...	...	...	N. 14 30W.	...	...	...	N. 14 30W.	...
	...	...	...	...	...	N. 14 15W.	...	...	...	N. 15 0W.	...
	...	...	...	...	...	N. 10 30W.	...	...	...	N. 12 30W.	...
10	26 26	5 36	0	...	27 0	N. 10 0W.	...	...	...	N. 12 0W.	...
	...	...	...	...	...	N. 12 0W.	38 53 W.	11 53 W.	N. 23 53W.	N. 13 0W.	10 53 W.
	...	...	...	...	...	N. 9 0W.	...	...	...	N. 10 30W.	...
	...	...	2 P.	...	...	N. 8 30W.	...	...	...	N. 11 0W.	...
11	24 15	3 9	3 P.	...	26 30	N. 3 0W.	...	...	...	N. 7 30W.	...
	...	...	3 P.	...	...	N. 12 30W.	39 14 W.	12 44 W.	N. 25 14W.	N. 16 0W.	9 14 W.
	...	...	3 P.	...	...	N. 5 0W.	...	...	...	N. 8 0W.	...
	...	...	3 P.	...	...	N. 4 0W.	...	...	...	N. 7 0W.	...
	...	...	6 P.	...	...	N. 5 0W.	...	...	...	N. 9 0W.	...
12	22 11	1 8	2 P.	...	26 10	N. 8 0W.	...	...	...	N. 12 0W.	...
	...	...	2 P.	...	...	N. 2 30W.	37 24 W.	11 14 W.	N. 13 44W.	N. 3 30W.	10 14 W.
	...	...	2 P.	...	...	N. 4 0W.	...	...	...	N. 6 0W.	...
	...	...	2 P.	...	...	N. 2 30W.	...	...	...	N. 6 0W.	...
	...	...	0	...	...	N. 4 0W.	...	...	...	N. 5 0W.	...
	...	...	1 S.	...	...	N. 3 0W.	...	...	...	N. 5 0W.	...
	...	...	0	...	...	N. 2 0W.	34 28 W.	8 18 W.	N. 10 18W.	N. 3 30W.	6 50 W.
	...	...	0	...	...	N. 2 0W.	...	...	...	N. 7 0W.	...
		West.									
13	20 20	0 29	0	...	25 30	N. 18 0W.	...	...	...	N. 15 45W.	...
	...	...	0	...	...	N. 2 0W.	34 26 W.	8 56 W.	N. 10 56W.	N. 4 0W.	6 56 W.
	...	...	1 S.	...	...	N. 9 0W.	...	...	...	N. 10 0W.	...
	...	...	1 S.	...	...	N. 12 0W.	...	...	...	N. 12 0W.	...
	...	...	...	...	...	N. 14 30W.	...	...	...	N. 16 30W.	...
14	...	...	1 S.	...	...	N. 16 15W.	...	...	...	N. 18 45W.	...
	...	...	1 S.	...	...	N. 15 0W.	...	...	...	N. 15 8W.	...
15	...	...	0	...	...	N. 22 0W.	...	...	...	N. 22 0W.	...
	...	...	0	...	...	N. 11 0W.	...	...	...	N. 12 0W.	...
16	St. Helena, James Town Road.		2 S.	...	...	S. 16 30 E.	...	...	...	S. 11 30 E.	...
17	15 30	6 52	0	...	...	N. 24 15W.	...	...	...	N. 23 30W.	...
	...	...	1 S.	...	...	N. 37 0W.	...	...	...	N. 33 0W.	...
	...	...	2 S.	...	...	N. 35 0W.	...	...	...	N. 34 0W.	...
	...	...	0	...	...	N. 34 0W.	...	...	...	N. 33 0W.	...
18	14 23	8 42	0	...	23 0	North.	*z* 32 52 W.	9 52 W.	N. 9 25W	N. 5 0W.	4 52 W.

"Simla," Captain W. Williams, Calcutta to Demerara, 1st Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head, by Compass.	Standard Compass. Total Error. Z. Azimuth. M. Amplitude.	Standard Compass. Deviation.	Steering Compass. Ship's Head, correct Magnetic.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation
1859.	South.	West.			West.						
May 18	° ′	° ′	°		° ′	° ′	° ′	° ′	° ′	° ′	° ′
	...	...	0	...	...	N. 24 30W.	*z* 32 14W.	9 14W.	N. 33 44W.	N. 23 30W.	10 14W.
	...	...	0	...	...	N. 45 30W.	*z* 31 50W.	8 50W.	N. 54 20W.	N. 43 W.	11 20W
	14 10	9 2	...	...	22 45	N. 71 30W.	...	...	...	N. 66 0W.	...
	...	...	...	...	...	N. 34 30W.	*m* 32 48W.	10 3W.	...	...	...
	...	...	1 S.	...	...	N. 33 0W.	...	...	...	N. 32 0W.	...
19	12 48	12 6	2 S.	...	...	N. 35 0W.	...	...	...	N. 32 30W.	...
	...	...	2 S.	...	...	N. 32 0W.	...	...	...	N. 30 0W.	...
20	11 54	15 33	3 S.	...	...	N. 42 0W.	...	...	...	N. 41 W.	...
	...	...	2 S.	...	...	N. 39 0W.	...	...	...	N. 37 0W.	...
21	11 6	17 21	0	...	19 30	N. 37 0W.	29 40W.	10 10W.	N. 47 10W.	N. 36 0W.	11 10W.
	10 59	17 45	3 S.	...	...	N. 44 30W.	...	...	...	N. 43 30W.	...
	...	...	0	...	...	N. 35 0W.	...	...	...	N. 35 45W.	...
	...	...	...	...	...	N. 40 0W.	...	...	...	N. 40 0W.	...
22	9 57	20 3	0	...	17 50	N. 35 0W.	*z* 29 20W.	11 30W.	N. 46 30W.	N. 34 30W.	12 0W.
	9 48	20 28	0	...	...	N. 36 0W.	...	...	...	N. 36 0W.	...
	...	...	0	...	...	N. 38 15W.	...	...	...	N. 37 45W.	...
	...	...	2 S.	...	...	N. 43 30W.	...	...	...	N. 43 0W.	...
23	8 50	22 30	0	...	16 0	N. 45 0W.	*m* 27 45W.	11 45W.	...	...	...
	8 36	23 11	2 S.	...	...	N. 38 0W.	...	...	...	N. 37 30W.	...
24	7 40	25 28	0	...	...	N. 47 0W.	...	...	...	N. 47 0W.	...
25	5 52	27 41	2 S.	...	...	N. 29 W.	...	...	...	N. 32 0W.	...
	...	...	0	...	...	N. 34 30W.	...	...	...	N. 35 0W.	...
	...	...	2 P.	...	...	N. 44 0W.	...	...	...	N. 43 45W.	...

On taking our steering compass into the cabin to be dried after the heavy rain, our spare compass, when placed in the binnacle, was found to point S.S.E. with the ship's head from N.W. by N. to N.N.W. The needle by some means or other must have had its polarity reversed.

26	5 7	29 15	0	...	12 30	N. 34 W.	...	...	...	N. 35 W.	...
	...	...	...	...	...	N. 33 30W.	...	...	...	N. 35 W.	...
	...	...	...	...	...	N. 28 0W.	*m* 24 0W.	11 30W.	...	...	...
	...	...	...	...	...	N. 31 30W.	...	...	...	N. 33 W.	...
27	4 41	30 30	2 P.	...	...	N. 28 0W.	...	...	...	N. 29 30W.	...
	...	...	6 P.	...	...	N. 22 0W.	...	...	...	N. 25 0W.	...
28	Fernando Noronha		2 P.	...	...	N. 17 0W.	...	...	...	N. 22 0W.	...
	N.W. by W. 20 miles		4 P.	...	...	N. 48 0W.	...	...	...	N. 50 30W.	...
29	2 59	34 21	4 S.	...	...	N. 66 W.	...	...	...	N. 63 45W.	...
	...	...	4 S.	...	...	N. 68 0W.	...	...	...	N. 67 15W.	...
30	2 0	38 34	4 S.	...	7 15	N. 65 0W.	...	...	...	N. 63 30W.	...
	...	...	4 S.	...	...	N. 59 30W.	14 14W.	6 59W.	N. 66 30W.	N. 58 0W.	8 30W.
31	0 30	41 10	2 P.	...	5 40	N. 6 30W.	17 12W.	11 32W.	N. 18 2W.	N. 9 30W.	8 32W.
	...	...	0	...	...	N. 25 0W.	18 20W.	12 40W.	N. 37 40W.	N. 28 0W.	9 40W.
	...	...	0	...	...	N. 43 30W.	16 30W.	10 50W.	N. 54 20W.	N. 48 0W.	6 20W.
	...	...	0	...	...	N. 65 30W.	10 42W.	5 2W.	N. 70 32W.	N. 65 0W.	5 32W.
	...	...	0	...	...	S. 85 0W.	5 57W.	0 17W.	S. 84 43W.	S. 85 0W.	0 17W.
	...	...	2 S.	...	...	S. 62 0W.	2 26E.	8 6E.	S. 70 6W.	S. 67 0W.	3 6E.
	...	...	4 S.	...	...	S. 37 30W.	5 15E.	10 55E.	S. 48 25W	S. 40 0W.	8 25E.
	North.										
June 1	2 0	44 0	4 P.	...	4 30	N. 24 0W.	...	...	...	N. 26 0W.	...
	...	...	8 P.	...	...*	N. 22 30W.	13 26W.	8 56W.	N. 31 26W.	N. 29 W.	2 26W.
	...	...	8 P.	...	...*	N. 46 0W.	...	...	...	N. 46 0W.	...
	...	...	4 P.	...	...	N. 38 30W.	...	...	...	N. 45 30W.	...
	...	...	6 P.	...	...	N. 50 30W.	...	...	...	N. 58 15W.	...

* The 8° port heel this morning's sight for azimuth shows a difference of 7° in the deviation of the steering compass, and 3½ on the standard compass from the deviations found yesterday when the ship was upright from N.N.W. The noon comparisons differ 5° from those taken on the same point in the morning, owing to our taking away the two soft iron cylinders that are placed close to the steering compass to compensate the error from heeling. On replacing them again in this former position the compass showed the difference it had before they were taken away.

2	3 19	45 40	2 P.	...	...	N. 20 W.	...	...	...	N. 24 W.	...
3	4 19	45 52	2 S.	...	...	N. 22 45W.	...	...	...	N. 26 W.	...
	...	...	0	...	...	N. 15 0W.	...	...	...	N. 19 W.	...
4	5 3	45 51	0	...	...	N. 63 30W.	...	...	...	N. 64 0W.	...
	...	...	2 S.	...	...	N. 19 45W.	...	...	...	N. 21 50W.	...
	...	...	0	...	...	N. 70 0W.	...	...	...	N. 72 0W.	...
	...	...	6 P.	...	...	N. 50 0W.	...	...	...	N. 53 0W.	...
5	5 42	46 8	2 S.	...	3 40	N. 45 0W.	...	...	...	N. 51 30W.	...
	...	...	0	...	...	N. 44 30W.	15 41W.	12 1W.	N. 56 31W.	N. 49 30W.	7 1W.
	...	...	0	...	...	N. 61 0W.	...	...	...	N. 64 0W.	...
	...	...	...	...	...	N. 83 0W.	...	...	...	N. 81 0W.	...
	...	...	2 P.	...	...	N. 75 0W.	...	...	...	N. 77 0W.	...
6	5 52	48 31	3 P.	...	2 30	N. 83 15W.	...	...	...	N. 83 45W.	...
	...	...	3 P.	...	...	N. 85 0W.	5 8W.	2 38W.	...	N. 85 0W.	2 38W.
	...	...	4 P.	...	...	N. 83 0W.	...	...	...	N. 83 0W.	...
	...	...	0	...	...	N. 75 0W.	...	...	...	N. 75 0W.	...
7	6 17	52 12	0	...	...	N. 75 0W.	...	...	...	N. 75 0W.	...
	...	...	2 S.	...	...	N. 83 0W.	...	...	...	N. 83 0W.	...
8	7 6	52 50	3 S.	...	0	S. 28 0W.	*z* 10 43E.	10 43E.	S. 38 43W.	S. 33 0W.	5 43E.
	...	...	2 S.	...	...	S. 48 0W.	10 4E.	10 4E.	S. 58 4W.	S. 51 0W.	7 4E.
	...	...	2 S.	...	...	S. 67 30W.	7 34E.	7 34E.	S. 75 4W.	S. 70 0W.	5 4E.
	...	...	0	...	...	N. 84 0W.	0 56W.	0 56W.	N. 84 56W.	N. 84 0W.	0 56W.
	...	...	0	...	...	N. 47 0W.	8 55W.	8 55W.	N. 55 55W.	N. 48 0W.	7 55W.
	7 17	53 18	3 S.	...	...	S. 61 0W.	...	...	...	S. 65 0W.	...
	...	...	2 S.	...	...	S. 63 45W.	...	...	...	S. 65 30W.	...
9	6 57	55 36	2 S.	...	...	S. 59 38W.	...	...	...	S. 65 25W.	...
	...	...	0	...	...	S. 61 30W.	...	...	...	S. 66 0W.	...
	...	...	...	...	...	S. 76 30W.	...	...	...	S. 81 0W.	...

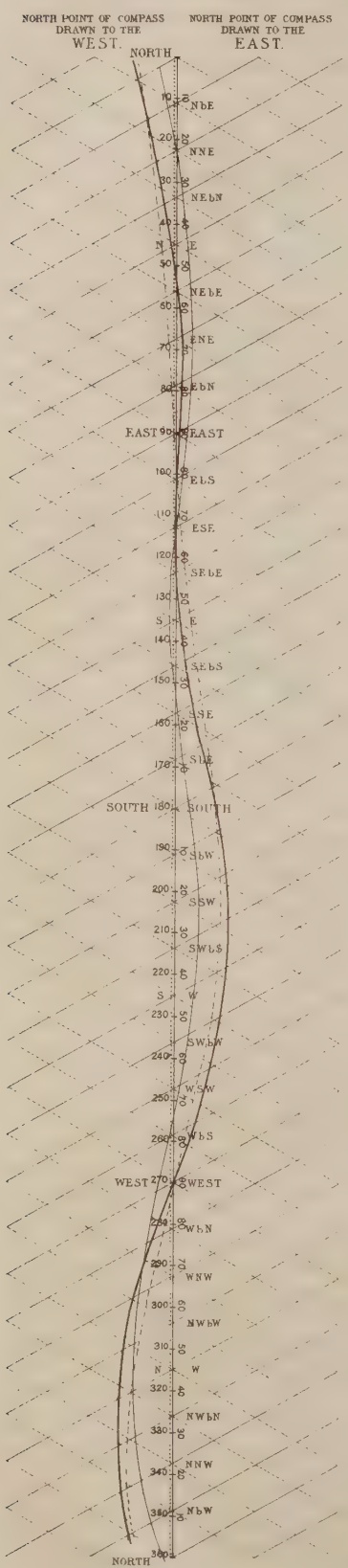
"Simla," Captain W. Williams, Demerara to Liverpool, 1st Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head by Compass.	Standard Compass. Total Error. Z. Azimuth. M. Amplitude.	Standard Compass. Deviation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Total Error.	Steering Compass. Deviation.
					DEMERARA TO LIVERPOOL.						
1859.	North. ° ′	West. ° ′	°		East. ° ′	° ′		° ′			
July 17	6 55	58 11	8 P.	...	2 10	N. 23 0 E.	...	1 15 E.	...	...	...
18	7 7	57 56	10 P.	...	2 0	N. 15 0W.	...	4 31 W.	...	...	...
	7 10	58 0	10 P.	...	2 0	N. 9 0W.	...	5 12 W.	...	...	...
20	9 50	58 22	8 P.	...	1 30	N. 7 0 E.	...	4 35 W.	...	...	...
	9 25	58 0	9 P.	...	1 30	N. 10 30 E.	...	2 42 E.	...	...	...
21	10 36	58 30	10 P.	...	1 25	N. 14 0 E.	...	0 5 E.	...	...	...
					West.						
23	15 32	60 16	12 P.	...	0 35	North	...	1 5 W.	...	...	...
26	22 13	62 19	9 P.	...	2 0	N. 4 W.	...	1 17 E.	...	...	...
27	24 19	62 57	6 P.	...	3 0	N. 3 W.	...	0 45 E.	...	...	...
	25 0	63 0	3 P.	...	3 30	N. 5 E.	...	2 42 W.	...	...	...
	24 19	62 57	6 P.	...	3 0	N. 19 E.	...	1 23 E.	...	...	...
	...	...	3 P.	...	,,	N. 32 E.	...	2 37 W.	...	...	...
	...	...	6 P.	...	,,	N. 3 W.	...	0 45 E.	...	...	...
28	25 58	63 16	2 P.	...	3 50	N. 29 E.	...	1 43 E.	...	...	...
	...	...	0	...	,,	N. 58 E.	...	0 56 E.	...	...	...
	26 0	63 15	3 S.	...	4 0	S. 54 W.	...	8 52 E.	...	...	...
	...	...	3 S.	...	3 50	S. 63 W.	...	6 42 E.	...	...	...
	...	63 17	2 S.	...	,,	N. 78 30W.	...	0 27 W.	...	...	...
	...	,,	2 S.	...	,,	N. 54 0W.	...	4 12 W.	...	...	...
	...	...	2 S.	...	,,	N. 27 0W.	...	7 22 W.	...	...	...
29	27 28	63 0	3 P.	...	4 50	N. 20 E.	...	0 24 E.	...	...	...
	...	...	0	...	,,	N. 24 W.	...	5 29 W.	...	...	...
	...	...	2 P.	...	,,	N. 5 W.	...	4 20 W.	...	...	...
30	29 16	64 0	7 P.	...	5 30	N. 6 30W.	...	2 54 W.	...	...	...
31	31 5	64 34	0	...	6 20	N. 1 W.	...	4 46 W.	...	...	...
	31 20	64 40	0	...	,,	N. 18 E.	...	5 48 W.	...	...	...
Aug. 1	31 49	64 51	0	...	6 0	N. 55 E.	...	2 42 W.	...	...	...
	32 0	64 48	6 P.	...	,,	N. 72 E.	...	0 52 W.	...	...	...
	32 10	,,	6 P.	...	7 0	N. 82 E.	...	1 26 W.	...	...	...
	,,	,,	6 P.	...	,,	East	...	4 35 W.	...	...	...
	31 46	,,	2 S.	...	6 30	S. 20 30W.	...	12 50 E.	...	...	...
	,,	,,	3 S.	...	6 40	S. 55 30W.	...	13 28 E.	...	...	...
3	35 16	62 0	0	...	11 30	N. 27 0 E.	...	0 51 E.	...	...	...
	...	...	2 P.	...	,,	N. 54 30 E.	...	2 29 E.	...	...	...
	...	...	3 P.	...	,,	N. 84 30 E.	...	0 44 E.	...	...	...
	...	...	3 P.	...	,,	S. 58 30 E.	...	1 28 W.	...	...	...
	...	...	3 P.	...	,,	S. 47 30 E.	...	0 40 W.	...	...	...
	...	...	4 S.	...	,,	N. 45 0W.	...	4 45 W.	...	...	...
	...	...	3 S.	...	,,	N. 26 0W.	...	8 8 W.	...	...	...
	...	...	2 S.	...	,,	N. 6 0W.	...	8 59 W.	...	...	...
4	35 18	60 9	0	...	12 15	N. 70 E.	...	3 6 E.	...	...	...
5	36 31	58 43	3 S.	...	14 30	N. 20 E.	...	3 30 W.	...	...	...
	...	...	0	...	,,	N. 42 E.	...	1 7 W.	...	...	...
	...	...	0	...	,,	N. 71 E.	...	0 8 E.	...	...	...
	...	...	0	...	,,	S. 85 E.	...	1 10 E.	...	...	...
	...	...	2 P.	...	,,	S. 71 E.	...	0 10 E.	...	...	...
	...	...	3 P.	...	,,	S. 33 30 E.	...	0 43 W.	...	...	...
7	31 3	56 22	2 S.	...	17 36	N. 57 30 E.	...	0 12 W.	...	...	...
10	41 53	49 22	0	...	25 20	N. 31 0 E.	...	3 29 W.	...	...	...
	...	...	0	...	,,	N. 53 0 E.	...	2 10 W.	...	...	...
11	42 22	47 37	3 S.	...	26 40	S. 37 30 E.	...	5 33 E.	...	...	...
	...	...	0	...	,,	S. 11 0 E.	...	8 53 E.	...	...	...
	...	...	0	...	,,	S. 13 30W.	...	10 3 E.	...	...	...
14	44 4	41 23	2 S.	...	31 5	N. 28 0 E.	...	2 11 W.	...	...	...
	...	...	0	...	,,	N. 78 30 E.	...	0 1 E.	...	...	...
	...	...	0	...	,,	S. 74 0 E.	...	0 31 E.	...	...	...
15	45 4	38 16	6 P.	...	33 0	S. 77 30 E.	...	0 19 E.	...	...	...
17	47 3	31 0	4 S.	...	34 25	N. 74 E.	...	1 51 E.	...	...	...
	...	...	0	...	,,	S. 86 E.	...	3 20 E.	...	...	...
	47 10	30 10	0	...	,,	S. 64 30 E.	...	2 19 E.	...	...	...
19	47 20	27 46	4 S.	...	33 30	S. 53 30 E.	...	6 56 E.	...	...	...
	...	...	4 S.	...	,,	S. 30 0 E.	...	7 37 E.	...	...	...
	...	...	3 S.	...	,,	S. 10 30 E.	...	11 1 E.	...	...	...
	...	...	2 S.	...	,,	S. 11 0W.	...	12 43 E	...	...	...
	...	...	0	...	,,	S. 28 0W.	...	10 26 E.	...	...	...
	...	...	0	...	,,	S. 37 30W.	...	8 50 E.	...	...	...
21	45 15	23 57	8 P.	...	30 5	N. 44 0 E.	...	3 59 E.	...	...	...
22	47 21	22 3	0	...	30 30	N. 2 30W.	...	0 56 W.	...	...	...
	...	...	2 P.	...	,,	N. 20 0 E.	...	0 21 E.	...	...	...
	...	...	2 P.	...	,,	N. 54 30 E.	...	3 9 E.	...	...	...
	46 40	22 48	7 P.	...	30 50	N. 64 0 E.	...	2 26 E.	...	...	...
	47 21	22 3	0	...	30 30	N. 83 30 E.	...	1 26 E.	...	...	...
	...	...	0	...	,,	East	...	0 8 E.	...	...	...
	...	...	4 S.	...	,,	S. 0 30W.	...	14 21 E.	...	...	...
	...	...	4 S.	...	,,	S. 25 0W.	...	16 30 E.	...	...	...
	...	...	4 S.	...	,,	S. 60 0W.	...	10 47 E.	...	...	...
	...	...	3 S.	...	,,	N. 86 30W.	...	1 40 E.	...	...	...
	...	...	2 S.	...	,,	N. 66 30W.	...	3 5 W.	...	...	...
	...	...	0	...	,,	N. 37 0W.	...	5 25 W.	...	...	...
	...	...	0	...	,,	N. 22 30W.	...	4 57 W.	...	...	...
23	47 11	21 47	4 S.	...	30 50	S. 57 0 E.	...	4 50 E.	...	...	...
	...	...	3 S.	...	,,	S. 34 30 E.	...	7 32 E.	...	...	...
	...	...	3 S.	...	,,	S. 17 30 E.	...	12 8 E.	...	...	...
	...	...	2 S.	...	,,	S. 1 30W.	...	14 37 E.	...	...	...
	...	...	2 S.	...	,,	S. 24 0W.	...	10 17 E.	...	...	...
25	46 28	17 12	9 S.	...	28 15	S. 73 30 E.	...	5 15 E.	...	...	...
Sept. 1	51 36	6 25	7 S.	...	25 5	N. 70 0 E.	...	0 5 E.	...	...	...

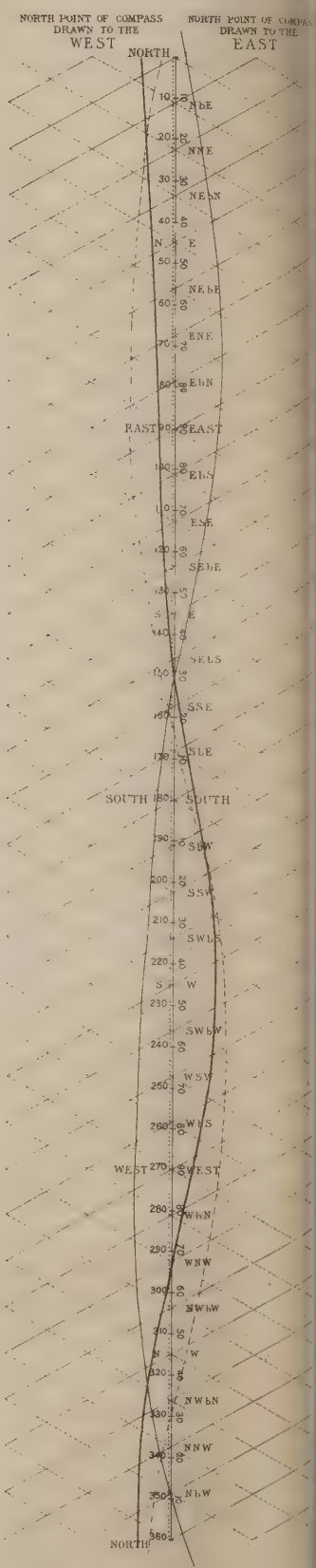
IRON SHIP "SIMLA".

SECOND VOYAGE.

STANDARD COMPASS.



STEERING COMPASS.



The Strong Curves show the Deviation on the Outward Voyage Latitude 50° 0 N Longitude 8
The Light Curves show the Deviation in the Southern Hemisphere Latitude 44°50'S. Longitude 5
The Dotted Curves show the Deviation on the Homeward Voyage Latitude 45°30'N. Longitude 11

"Simla," Captain W. Williams, Liverpool to Calcutta, 2d Voyage.

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head by Compass.	Standard Compass. Deviation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation.
LIVERPOOL TO CALCUTTA. 2d Voyage.									
1859.	° ′	° ′	°		West. ° ′	° ′	° ′	° ′	° ′
Sept. 20	Sandon Dock, Liverpool.		0	...	...	N. 65 30 W.	9 30 W.	...	...
Nov. 11	Victoria Channel, Liverpool.		0	...	...	N. 24 W.	16 0 W.	N. 24 W.	16 0 W.
	Midchannel between Holyhead and Kish L.V.		8 P.	...	25 30	S. 40 E.	2 22 W.	S. 32 30 E.	9 52 W.
			8 P.	...	„	S. 72 W.	8 20 E.	S. 68 W.	11 50 E.
12	Off Holyhead		8 P.	...	„	S. 46 E.	5 0 W.	S. 43 E.	11 0 W.
	North.	West.							
13	53 0	5 20	2 S.	...	„	S. 67 30 W.	9 40 E.	S. 69 30 W.	7 40 E.
	...	...	0	...	„	S. 73 E.	3 44 E.	S. 64 0 E.	5 16 W.
	...	5 0	0	...	„	S. 18 W.	21 45 E.	...	...
	...	...	0	...	„	S. 21 W.	17 12 E.	...	...
	...	...	...	...	...	S. 35 W.	16 5 E.	...	...
	...	4 20	4 S.	...	25 30	S. 42 W.	19 10 E.	S. 47 W.	14 10 E.
	52 40	5 0	2 S.	...	„	S. 10 E.	10 0 E.	...	...
14	52 49	5 8	3 S.	...	„	S. 14 30 E.	7 38 E.	S. 10 30 E.	3 38 E.
	52 40	5 0	2 S.	...	„	N. 35 W.	12 0 W.	N. 44 W.	3 0 W.
17†	50 4	8 28	2 S.	...	25 25	N. 3 E.	14 24 W.	N. 2 W.	9 24 W.
	...	...	0	...	...	N. 24 30 E.	7 12 W.	N. 27 E.	9 42 W.
	...	...	„	...	...	N. 38 E.	2 12 W.	N. 41 E.	5 12 W.
	...	...	„	...	...	N. 48 E.	1 25 W.	N. 54 E.	7 25 W.
	...	...	„	...	...	N. 69 30 E.	1 21 E.	N. 75 E.	4 9 W.
	...	...	„	...	...	N. 89 E.	0 32 W.	N. 94 E.	5 32 W.
	...	...	„	...	...	S. 62 30 E.	0 13 E.	S. 59 30 E.	2 47 W.
	...	...	„	...	...	S. 41 E.	1 35 E.	S. 37 E.	2 25 W.
	...	...	„	...	...	S. 22 E.	7 5 E.	S. 18 E.	3 5 E.
	...	...	„	...	...	S. 3 W.	13 45 E.	S. 9 W.	7 45 E.
	...	...	„	...	...	S. 19 W.	16 2 E.	S. 25 W.	10 2 E.
	...	...	„	...	...	S. 52 W.	9 50 E.	S. 51 W.	10 50 E.
	...	...	„	...	...	S. 80 W.	3 28 E.	S. 74 W.	9 28 E.
	...	...	1 S.	...	...	N. 67 W.	7 45 W.	N. 77 W.	2 15 E.
	...	...	2 S.	...	...	N. 42 W.	15 26 W.	N. 56 W.	1 26 W.
	...	...	2 S.	...	...	N. 18 30 W.	17 5 W.	N. 28 W.	7 35 W.
22	44 50	17 9	6 S.	...	26 50	S. 18 W.	25 0 E.	S. 23 W.	20 0 E.
	45 0	18 0	6 S.	...	„	S. 24 W.	19 26 E.	S. 28 W.	15 26 E.
24‡	40 38	16 50	6 P.	...	24 20	S. 13 W.	9 30 E.	S. 17 W.	5 30 E.
25	37 1	16 0	3 P.	...	23 35	S. 14 W.	10 2 E.	S. 17 W.	7 2 E.
26	33 30	16 0	0	...	23 0	S. 10 W.	12 3 E.	S. 12 30 W.	9 33 E.
28	29 44	17 22	5 S.	...	21 25	S. 47 30 W.	13 10 E.	S. 48 30 W.	12 10 E.
30	24 52	21 55	6 S.	...	20 15	S. 25 W.	14 55 E.	S. 26 W.	13 55 E.
Dec. 1	21 38	23 16	3 S.	...	19 12	S. 39 W.	15 2 E.	S. 42 W.	12 2 E.
2	18 48	25 22	0	...	17 45	S. 43 W.	11 7 E.	S. 44 30 W.	9 37 E.
3	16 0	27 1	5 S.	...	16 35	S. 24 W.	12 15 E.	S. 27 W.	9 15 E.
4	13 1	28 6	2 S.	...	15 25	S. 20 W.	11 36 E.	S. 20 W.	11 36 E.
5	10 0	29 0	4 S.	...	14 10	N. 72 W.	6 16 W.	N. 76 30 W.	1 46 W.
	...	...	4 S.	...	...	N. 40 W.	13 28 W.	N. 44 30 W.	8 58 W.
7	5 30	28 40	5 S.	...	13 30	S. 11 30 W.	7 33 E.	S. 13 W.	6 3 E.
8	3 20	30 8	6 S.	...	12 41	S. 56 W.	6 0 E.	S. 61 W.	1 0 E.
9	1 33	31 49	3 S.	...	11 40	S. 10 W.	9 50 E.	S. 12 W.	7 50 E.
10	0 0	32 42	6 S.	...	10 55	S. 6 W.	8 10 E.	S. 8 30 W.	5 40 E.
	South.								
11	2 19	33 7	4 S.	...	10 10	S. 4 E.	6 37 E.	South	2 37 E.
12	4 5	33 21	7 S.	...	10 5	S. 7 E.	3 58 E.	S. 3 E.	0 2 W.
13	6 42	33 41	6 S.	...	9 45	S. 4 W.	7 33 E.	S. 8 W.	2 33 E.

† Nov. 17.—It will be seen by the azimuths obtained by this morning's swing, and the previous observations since we left Liverpool, that both compasses have increased and altered their deviations considerably. The fact of our having upwards of 2,000 tons of railway machinery and other iron on board no doubt is the cause of this, or it may be that the jerking and tremor in taking in and stowing the cargo has imparted to the ship an increased power of attraction. It is rather singular that the deviations of the standard compass are now nearly the same as they were when the ship was swung three weeks after launching, although during our last voyage the deviation had much decreased even in high Latitudes, as may be seen by referring to the register of my last voyage. Our compasses are and have been undisturbed since we left the Bay of Bengal, last voyage. We took in the whole of our cargo on the south side of Sandon Dock with our head to W.N.W. by standard compass. Our standard azimuth compass is not compensated, it is 10 feet 10 inches from deck to card, and rests over the foremost skidd which has two iron stanchions for supporters. The centre of card is distant 5 feet 9 inches from upper end of stanchion on each side; 20 feet 2 inches from top of shell plate; 21 feet from ends of deck beams under the compass; 13 feet 6 inches from ends of boats davits abreast and on a level (one pair on each side and generally canted in); 24 feet from nearest part of mizen mast, and 24 feet from after part of main mast. The masts and lower yards are iron; wooden bulwarks and wire rigging. The after part of iron cargo is 30 feet abaft the compass, and extends to 129 feet before the compass. I have a fancy to take away the iron supporters under the skidd and substitute wooden ones, for I think they cause this compass to alter as much as anything else, although I do not anticipate more than about 8° maximum change during the voyage in the standard. I corrected to-day 3° error in central line of standard compass, and made the alterations required in bearing of ship's head for standard and in the deviations of the steering compass which were obtained by comparison with the standard.

‡ Nov. 24.—The difference in the deviation of both our compasses with different degrees of heel to port and starboard on this course is very apparent, amounting to about 1° of deviation for each degree of heel; the easterly deviation being increased with starboard heel and diminished with port heel; but I am inclined to think it will not have the same effect in a high Southern Latitude, perhaps the contrary. I shall endeavour to get an opportunity to try it. It is a rare chance to have the shift of wind of sufficient strength to put the ship over to 6° or 8° port and starboard on the same course in the same Lat. and Long. (or nearly so), and it is also too much risk to trim cargo for the purpose in the open ocean.

"Simla," Captain W. Williams, Liverpool to Calcutta, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic		Standard Compass.		Steering Compass.	
				Dip.	Variation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
1859.	South. ° ′	West. ° ′	°		West. ° ′	° ′	° ′	° ′	′
Dec. 14†	10 51	33 53	5 S.	...	8 55	S. 17 E.	1 46 E.	S. 14 E.	1 14 W.
	9 32	34 0	10 S.	...	9 5	S. 2 E.	6 9 E.	S. 1 W.	3 9 E.
15	12 33	33 39	4 S.	...	8 55	S. 2 30 E.	4 43 E.	S. 1 W.	1 13 E.
16	15 43	32 45	4 S.	...	„	S. 11 30 E.	4 20 E.	S. 8 E.	0 50 E.
19‡	24 41	31 8	5 S.	...	8 35	S. 19 E.	2 1 E.	S. 15 E.	1 59 W.
20§	27 11	29 31	4 S.	...	8 40	S. 47 E.	0 30 E.	S. 48 E.	1 30 E.
	...	...	2 S.	...	„	S. 26 E.	3 6 E.	S. 22 E.	0 54 W.
21‖	...	...	...	...	...	... ...	...	...	...
22¶	29 19	27 7	0	...	9 35	N. 3 E.	6 12 W.	N. 2 W.	1 12 W.
	...	...	...	...	...	N. 44 E.	2 49 E.	N. 41 30 E.	5 19 E.
	...	...	2 P.	...	...	N. 78 E.	1 39 E.	N. 75 E.	4 39 E.
	...	...	0	...	...	S. 48 30 W.	8 1 E.	S. 57 W.	0 29 W.
	...	...	0	...	...	S. 52 W.	7 15 E.	S. 62 W.	2 45 W.
	...	...	0	...	...	N. 63 30 W.	7 18 W.	N. 61 W.	9 48 W.
	...	...	0	...	...	N. 30 W.	11 12 W.	N. 33 W.	8 12 W.
23	30 24	27 15	1 S.	...	9 20	S. 34 E.	1 10 E.	S. 34 E.	1 10 E.
	...	...	3 S.	...	...	S. 15 30 E.	3 5 E.	S. 12 E.	0 25 W.
	...	...	3 S.	...	9 25	S. 19 W.	8 23 E.	S. 26 W.	1 23 E.
	30 0	27 10	2 S.	...	„	S. 31 W.	7 59 E.	S. 38 W.	0 59 E.
	30 2	27 10	2 S.	...	„	West	2 35 W.	N. 86 W.	6 55 W.
24	31 49	26 50	2 S.	...	9 0	S. 72 E.	0 20 W.	S. 74 30 E.	2 10 E.
	31 17	27 3	2 S.	...	9 0	S. 61 E.	0 52 E.	S. 63 0 E.	2 52 E.
	...	...	2 S.	...	„	S. 55 E.	0 25 W.	S. 59 E.	3 35 E.
	31 49	26 50	1 S.	...	9 5	S. 48 30 E.	1 3 W.	S. 51 E.	1 27 E.
	31 17	27 3	2 S.	...	9 5	S. 22 30 E.	0 32 E.	S. 20 E.	1 58 W.
	31 49	26 50	1 S.	...	9 5	S. 25 30 E.	0 37 E.	S. 23 E.	1 52 W.
26**	34 11	23 30	0	...	11 5	S. 44 E.	2 6 W.	...	...
27	31 8	21 50	2 S.	...	11 5	S. 44 E.	1 54 W.	S. 47 E.	1 6 E.
29	39 0	18 30	10 S.	...	12 5	South	2 13 W.	S. 5 W.	7 13 W.
30††	41 0	16 50	0	...	12 5	S. 3 E.	3 31 E.	S. 4 W.	3 29 W.

† Dec. 14.—The error from heeling is not so apparent here as it was in high North Latitude. The deviations of both compasses have decreased gradually on these courses.

‡ Dec. 19.—The top of shell plate (topsides) slightly attracting the south point of a small compass needle. The upright iron supporters under the skidd that the standard compass is on still attract the north point, so do the upper ends of the boat's davits. Loose iron such as loose bolts, windlass, normans, &c. their upper ends attract the south end of the needle slightly, and the lower ends repel the same.

§ Dec. 20th.—Upper ends of skidd supporters still attracting the north end of the needle. Took a small hammer in my hand and gave one of them two or three raps with it, and on applying the compass to it afterwards the upper end instead of attracting the North point now attracted the south point, and the lower end repelled it; while the other three stanchions that were not hammered remained the same. I shall treat the second stanchion the same to-morrow, and leave the two that are under the foremost skidd (where the standard compass is fixed) untouched to change their polarity without any help, and I shall watch the time and place they will give in to the southern law.

‖ Dec. 21.—Gave the second stanchion under the after skidd several strokes with a wooden serving mallet. This neutralized its polarity. A few strokes more gave the upper end a very slight attraction for the south point of the needle, but not so decidedly as the one which was struck with the iron hammer yesterday.

¶ Dec. 22d.—The azimuths observed to-day were taken under very favourable circumstances, only they were not all taken at the same time, but some were a.m. and some p.m. azimuths, which I have sometimes found not to agree within a degree or so. They show a considerable decrease in the deviations of the standard compass. The change is about 8° on the maximum. They have decreased gradually according to latitude since we left Liverpool. I think it is worthy of note that the curve obtained from the observations made on this voyage coincides so exactly with the curve obtained from observations made nearly in the same spot last voyage; and as I noted elsewhere the deviations on leaving Liverpool were much about the same last voyage and this. So it appears that our having iron cargo does not affect the compasses (in this locality at least), although the taking it in at Liverpool had something to do with the curves. There is another point connected with it, viz., the error on the same point in the same latitude here in the South does not correspond on the outward with the homeward passage, though the two outward deviations agree exactly (that is within the probable error of a degree and no more in observing); but if we were to retrace our track backward from the Bay of Bengal, the deviations I think would be different. For instance, last voyage on the homeward voyage on the 26th April 1859 in Lat. 29° 16′ S., Long. 39° 10′ E., the deviation of the standard compass was 14° 31′ W. with ship's head N. 24° 30′ W., whereas on this voyage and on the last outward passage in the same latitude the deviation on the same point was 8° 30′ W., the discrepancy arising no doubt from the tenacity with which some of the upright iron that affects the compass retains its changing magnetism after the ship has been sailing or remaining for some time in the opposite latitude.

** Dec. 26th.—Upper edge of mizen mast head slightly attracting the south end of the needle; so does the upper end of 'tween deck stanchions under every beam (they are only 3 feet apart the whole length of the ship, except in the cabin), and also the upper end of vertical iron ribs (ship's frame) in 'tween decks. The other iron supporters under the skidd still retain their attraction of the north end of the needle; so do the upper end of the boat's davits, as well as the 4 crutches under the ends of the skidds in main rails.

†† Dec. 30th.—It appears by comparing to-day's azimuths with the previous ones, and especially with the amplitude of last evening, that both steering and standard compasses are affected with heeling in a contrary way to what they were in the northern hemisphere. At sunset, yesterday, the sun's amplitude gave the deviation of the standard compass 2° 13′ W. with 10° starboard heel, the last azimuth this afternoon gave 3° 31′ E. ship's head South and S. 3° E. respectively, which shows 5° 40′ due to 10° starboard heel (the ship to-day being upright). The above 2° 13′ W. deviation with 10° starboard heel would have been 9° 15′ E. in that part of the northern hemisphere in which the upright iron has the same amount of attraction for the north point of the needle that it has in this latitude for the south point. The steering compensated compass is affected about 4½° by heeling in the same way as the standard. It appears that the attraction of the upright iron on the port side draws the south point of the needle to the upper side in this hemisphere, and repels the same in the northern hemisphere with ship's head on the same point, causing in this ship an increase of easterly deviation in the northern and a decrease in the southern hemisphere with ship's head South. This change of error from heeling in different latitudes is another difficulty in the way of contriving a compensation for correcting the error from heeling, by making it necessary to have a moveable corrector to correct for change of hemisphere in the way contrived by the Astronomer Royal for suiting the magnets to correct the general deviation when the ship is upright. Something that would counteract this error from heeling in the two hemispheres on otherwise compensated or uncompensated compasses would be very valuable. It would be the cure for the most difficult and perplexing error the shipmaster has to allow for in squally and changeable wind and weather, when trying to steer a good course to make the land. I have no doubt it has been the cause of the loss of many an iron ship, if not wooden ships also.

"Simla," Captain W. Williams, Liverpool to Calcutta, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic		Standard Compass.		Steering Compass.	
				Dip.	Variation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
1860.	South. ° ′	East. ° ′			West. ° ′	° ′	° ′	° ′	° ′
Jan. 9†	45 14	26 56	0	...	32 0	S. 55 E.	0 37 E.	S. 62 E.	7 37 E.
11‡	44 50	35 8	0	...	32 20	N. 70 30 E.	3 20 E.	N. 61 E.	12 50 E.
	...	...	...	...	...	N. 81 30 E.	3 40 E.	N. 70 E.	15 10 E.
	...	...	...	...	...	S. 77 E.	0 0	S. 89 E.	12 0 E.
	...	...	...	...	...	S. 65 E.	0 40 W.	S. 76 E.	10 20 E.
	...	...	...	...	...	S. 27 E.	0 14 W.	S. 27 E.	0 14 W.
12§	44 30	37 48	2 S.	...	32 10	S. 71 E.	0 6 E.	S. 83 E.	12 6 E.
13	44 8	40 37	5 S.	...	31 40	S. 71 E.	1 40 W.	S. 84 30 E.	11 50 E.
16‖	42 46	46 15	10 S.	...	30 30	S. 46 E.	5 18 W.	S. 60 E.	8 42 E.
	42 58	47 9	8 S.	...	„	S. 40 E.	7 26 W.	S. 54 30 E.	7 4 E.
20	41 28	65 32	3 S.	...	25 35	N. 88 E.	0 30 W.	N. 76 E.	11 30 E.
21	40 38	68 2	0	...	23 35	N. 87 E.	1 29 W.	N. 75 30 E.	10 1 E.
25	32 20	76 15	4 P.	...	14 40	N. 5 30 E.	3 48 W.	N. 1 E.	0 42 E.
	...	...	4 P.	...	„	N. 25 E.	0 40 E.	N. 19 E.	6 40 E.
28¶	28 12	73 30	0	...	11 40	S. 5 E.	3 52 E.	S. 3 E.	1 52 E.
	...	...	„	...	„	S. 24 W.	12 24 E.	S. 37 W.	0 36 W.
	...	...	„	...	„	S. 49 30 W.	12 50 E.	S. 62 30 W.	2 30 W.
	...	...	„	...	„	S. 82½ W.	3 0 E.	N. 85 W.	9 30 W.
	. .	...	2 P.	...	„	N. 62 W.	7 10 W.	N. 58 W.	11 10 W.
	...	...	2 P.	...	„	N. 36 W.	12 35 W.	N. 37 W.	11 35 W.
	...	...	0	...	„	N. 19 30 W.	10 57 W.	N. 19 W.	11 27 W.
30	26 15	73 20	5 S.	...	10 40	N. 74 E.	2 35 E.	N. 67 E.	9 35 E.
	26 25	73 0	3 P.	...	„	N. 18 30 W.	9 33 W.	N. 18 30 W.	9 33 W.
31**	24 46	75 12	1 S.	...	8 45	N. 6 E.	0 30 W.	N. 3 E.	2 30 E.
	25 24	75 0	2 S.	...	9 26	N. 17 E.	1 35 E.	N. 11 E.	7 35 E.
	...	...	4 S.	...	„	N. 35 E.	3 48 E.	N. 30 E.	8 48 E.
Feb. 6	16 12	76 35	10 P.	...	3 25	N. 17 E.	1 35 W.	N. 11 30 E.	3 55 E.
	14 50	76 40	8 P.	...	3 0	N. 17 E.	2 30 W.	N. 11 E.	2 30 E.

† January 9, 1860.—The upper ends of the two upright stanchions under the standard compass are now neutral; they affect the N. and S. points of the small moveable compass alike. The lower ends of the stanchions to the height of about three feet from the deck have a slight attraction for the North. The stanchions, as well as the very *ends* of the boat's davits, held their attraction for the north end of the needle until within the last two or three days, but now the upper ends of the davits have a decided attraction for the South. The only iron I can find about the ship retaining attraction for the North are the fancy cast-iron stanchions that support the hand-rail down to the cabin; these are five feet from the steering compass, the upper ends on a level with it and that distance forward. The steering compass has about 5° more easterly deviation than it had on the same point when I had the ship swung on the 24th ultimo. The magnets have not been moved since I corrected them, so as to make the Sandheads last voyage. It is probable this compass will be again nearly correct when we get there this voyage, and also that the standard will show the same deviations as then, or not far from it.

‡ Jan. 11.—By to-day's azimuths it appears that the steering compass has increased its easterly deviations (on the points observed this afternoon) on the maximum more than a point since the 24th ultimo. No difference of note is taking place in the standard. On the 14th of August 1859 in the North Atlantic, Lat. 44° N., Long. 41° W., the deviation of the steering compass on the same point (correct magnetic) was 11° 34′ West, we were then on our passage home from Demerara. To-day the deviation on the same point is 15° 10′ East, the extreme change from 44 N. Lat. to 45 S. Lat., being 26° 44′, showing that there would be no deviation either E. or W. about 12° to 13° South Lat. The extreme change was the same last voyage, only then the compass was correct when we left Liverpool, and showed so much the more error when we got off the Cape, here, where I took the magnets off and afterwards put them in end for end as recorded in the register of my last voyage. The iron stanchions under the skidds at their upper ends have a decided attraction to-day for the south point of the needle, equal in force to that of the earth.

§ Jan. 12.—The attraction of the upper ends of the two stanchions alluded to above is stronger to-day than that of the earth, as is shown by their drawing the south point of the needle when the compass is placed on their south side.

‖ Jan. 16.—By this morning's azimuths the standard compass has 5° 18′ W. deviation on the S.E. course. On the 11th instant it had little or no W. deviation on that point when the ship was upright. Although to-day's azimuths were not the best on account of the swing of the card, they were correct within less than 2° of error at the furthest, and probably within 1°. I therefore attribute 1° or 5° of this westerly deviation as due to the 10° starboard heel, which the ship has to-day, and which affects the compass in the same way as was observed Dec. 30, 1859, namely, contrary to the way the compass was affected by heeling in the northern hemisphere. The steering compass does not appear to be affected by to-day's heel, but as this compass is more liable to change of deviation on this course than the other, I cannot decide without more observations in this locality with the ship upright.

The afternoon azimuth shows even more error from heeling. The mean of the two observations will be near the mark.

Jan. 17.—On examining the record of azimuths taken on my last voyage to find whether the heeling of the ship affected our compass in this hemisphere in the same manner as it does on this voyage, I found the following observations which prove that it did. For instance, on Nov. 30, in lat. 33° 25′ S., long. 84° 13′ E., the deviation of the standard on N. 15 E. was 1° 10′ E., the ship heeling 2° to port only. On the following day, Dec. 1, in lat. 29 S., long. 85° 25′ E., the deviation of the same compass on N. 16° E. was 5° 27′ W., the ship then having 8° port heel, being 6° more deviation than on the preceding day, showing that the upright iron of the starboard or upper side drew the south point of the compass 6° 37′ toward it. These observations are recorded in my returned Board of Trade Register for the last voyage.

¶ Jan. 28.—The azimuths to-day show an increase in the deviation of the standard compass since I put the ship round for the deviations in the South Atlantic on the 22d Dec. nearly on the same parallel as we are to-day. Had circumstances permitted to put her round somewhere about the Crozet Islands, it is probable the deviations on the S.W. and N.W. quarters would have been found still greater than they now are. A chart or a table of the dip of the needle in different latitudes over the globe would be very useful. I think with the original error (or the error at any other time at a certain place) of the compass it would be possible to find approximately the change that would be likely to take place both on the error when upright as well as that caused by heeling in different latitudes.

** Jan. 31.—The deviation found this morning for both compasses differs more than 7° from what it was last voyage on the same point in nearly the same latitude on the passage home from Calcutta. It was April 26, 1859, lat. 29° 16′ S., long. 39° 11′ E., when the deviations were by the standard compass 3° 30′ W., ship's head N. 32° E., heel 3° to starboard,
and by the steering compass 3° 0′ W., ship's head N. 31° 30′ E., heel 3° to starboard;
to-day the deviations are,
by the standard compass 3° 48′ E., ship's head N. 35° E., heel 4° to starboard,
by the steering compass 8° 48′ E., ship's head N. 30° E., heel 4° to starboard.
The cause of this difference is probably the ship having in the first case been sailing for a long time to the S.W., and in the latter case to the East. However the deviations are very perplexing and ever varying, and cannot be trusted for being exactly right at any time, at least when at sea.

"Simla," Captain W. Williams, Liverpool to Calcutta, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head by Compass.	Standard Compass. Deviation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation
1860.	South. ° ′	East. ° ′	°		West. ° ′	° ′	° ′	° ′	° ′
Feb. 8†	10 1	77 15	2 P.	...	1 50	N. 17 30 E.	0 13 W.	N. 15 E.	2 17 E.
	...	...	...	...	„	N. 16 30 E.	0 20 W.	N. 14 30 E.	1 40 E.
9	8 10	77 24	0	...	1 25	N. 2 E.	2 35 W.	N.	0 35 W.
	...	...	„	...	„	N. 25 W.	6 20 W.	N. 25 W.	6 20 W.
10	7 0	77 0	0	...	...	N. 20 E.	0 35 E.	N. 19 30 E.	1 5 E.
	7 9	76 50	0	...	1 20	N. 80 W.	1 3 W.	N. 76 30 W.	4 33 W.
	...	...	„	...	...	N. 65 W.	3 51 W.	N. 63 W.	5 51 W.
11	6 30	77 14	0	...	1 15	N. 19 30 E.	1 15 W.	N. 19 E.	2 8 E.
15‡	3 31	81 35	0	...	0 22	N. 9 E.	1 10 E.	N. 5 30 E.	4 40 E.
16	3 0	82 16	0	...	0 10	N. 1 30 E.	2 20 W.	N. 0 30 W.	0 20 W.
17§	2 22	82 29	3 S.	...	0 5	N. 2 E.	2 55 W.	N. 0 30 W.	0 5 W.
	...	...	2 S.	...	„	N. 23 E.	0 45 E.	N. 23 E.	0 45 E.
	...	...	2 S.	...	„	N. 25 W.	6 5 W.	N. 24 W.	7 5 W.
					East.				
18‖	0 22	82 44	8 S.	...	0 10	N. 1 30 E.	3 5 W.	N. 2 E.	3 35 W.
	...	...	...	...	...	N. 2 W.	4 0 W.	N. 1 30 W.	4 30 W.
	...	...	...	...	...	N. 16 E.	1 40 W.	N. 15 30 E.	1 10 W.
	North.								
19	1 16	84 10	0	...	0 25	N. 1 30 E.	2 22 W.	N. 0 30 W.	0 22 W.
	...	84 17	2 S.	...	„	S. 83 E.	2 45 W.	S. 84 E.	1 54 W.
20¶	2 9	84 28	0	...	0 30	N. 3 30 E.	1 56 W.	N. 2 E.	0 41 W.
	...	...	...	...	...	N. 3 30 E.	2 0 W.	N. 1 30 E.	0 0
21	2 33	84 24	0	...	0 40	N. 43 W.	7 6 W.	N. 43 W.	7 6 W.
23**	3 10	83 32	1 S.	...	0 30	N. 0 30 E.	2 32 W.	N.	2 2 W.
	...	...	0	...	...	N. 34 E.	3 5 E.	N. 33 E.	4 5 E.
	...	...	„	...	...	N. 63 E.	3 36 E.	N. 64 E.	2 36 E.
	...	...	„	...	...	N. 84 30 E.	1 9 E.	N. 82 E.	3 39 E.
	...	...	2 S.	...	...	S. 42 30 E.	4 51 W.	S. 44 E.	3 21 W.
	...	...	2 S.	...	...	S. 22 E.	3 9 W.	S. 21 E.	4 9 W.
	...	...	1 S.	...	...	S. 1 30 E.	1 20 E.	S. 1 W.	1 10 E.
	...	...	1 S.	...	...	S. 46 30 W.	8 24 E.	S. 53 W.	1 54 E.
	...	...	1 S.	...	...	S. 74 W.	4 52 E.	S. 76 W.	2 52 E.
	...	...	0	...	...	N. 79 W.	1 28 W.	N. 77 W.	3 28 W.
	...	...	„	...	...	N. 46 30 W.	6 45 W.	N. 48 W.	5 15 W.
	...	...	„	...	...	N. 23 30 W.	7 11 W.	N. 24 30 W.	6 11 W.
	...	...	1 S.	...	...	N. 9 30 W.	5 11 W.	N. 10 W.	4 41 W.
Mar. 1	5 48	82 20	0	...	0 35	N. 61 W.	4 27 W.	N. 63 30 W.	1 57 W.
	...	...	...	...	...	N. 40 W.	5 57 W.	N. 43 W.	2 57 W.

† Feb. 8.—To-day's azimuths compared with those taken on the 6th on the same point show but little effect from difference of heel but what there is in the same direction that was observed further South. The polarity of all upright iron much more sluggish to-day than when I put the pocket compass to them further South.

‡ Feb. 15.—At noon to-day tried the polarity of different vertical iron, found the mizen mast-head to have changed; so have the two stanchions under the fore skidd which were so obstinate in changing on coming South in the South Atlantic. The aftermost under the after skidd are neutral. 'Tween deck stanchions still retain their southern polarity, so do the boats' davits, the top of shell-plate and frames as well as the loose iron about the decks slightly.

§ Feb. 17.—The southern polarity of vertical iron almost vanished. The only way I have to try it is the following,—a bolt 3½ feet long by 2½ inches diameter held vertically on deck, and a small pocket compass (having its needle free of the card) applied to the upper end of the bolt on one side, and then on the other side across the magnetic meridian, or on the East and West sides of the bolt. The deflection caused by shifting the compass from one side to the other to-day at noon was only two points, and then I turn the bolt end for end and apply the compass again.

‖ Feb. 18.—To-day at noon the iron bolt made use of above was as near neutral as possible when held vertical and the needle trembling. The bolt held fore and aft, or as near as could be North and South, and parallel with the horizon, attracted the north point of the needle with its south end, the north end drew the south point, both nearly at right angles. Exactly in the middle the needle was parallel with the bolt. Our ship is too deep to try this on the hull. I should like to have a swing of the ship just here to compare with those I had here going out and coming home last voyage, to see whether this horizontal magnetism changes, as I take it to be the only source of error that affects our compasses here where the other is neutral.

4 P.M. Feb. 18.—After writing the above the wind increased, and as it afforded a good opportunity for trying how far the heel affected our compasses in these latitudes, I took three azimuths as recorded, and contrary to my expectations I find them affected by the northern polarity, although but little to what it would be in high latitudes. The two stanchions under the standard compass were perhaps the cause of the standard deviating that way, as they had previously changed as noted on the 15th. On applying my small compass to the top of the shell-plate round the stern I found it drew the north point quite round, the ship's head at the time being North. Our steering compass is only 12½ feet from this round stern, and within a few inches of the same distance from the ship's sides. The card is only 2 feet 10 inches from the deck; 7½ feet before the stern-post; 5½ feet before the spindle of the wheel; and 8 feet before the rudder stock, which is 2¼ feet high from the deck. The stern post is cut short. The wheel-spindle is 2 feet 6 inches high from the deck.

¶ Feb. 20th.—Put the ship round as far as I could this morning early, to obtain a good set of azimuths while the sun was low, the sea being smooth with a very light air of wind. Although I got what I considered very good azimuths, they do not agree with the previous ones, but they agree with one another. Something wrong about the compass, cannot find out what. It is very provoking after all the trouble and a good chance to obtain the deviations. To prove which was right I took two other azimuths in the afternoon when the sun had the same hour angle, and the ship's head exactly on one of the points observed in the morning, the ship in the meantime having made only 4 or 5 miles more northing than the sun. The true azimuth would be nearly as much West as the other was East in the morning, therefore the observed azimuths should be the same also, but they were not, the A.M. one was S. 78 30 E., and the P.M. one was S. 80 15 W. The sun's true azimuth in the morning was S. 78 30 E., and in the afternoon S. 78 34 W., only 4′ difference, whereas the observed difference is 2°. I therefore come to the conclusion that the A.M. observations should have 2° correction, making the deviations less in the South-west quarter and more in the North-west quarter, as that would make them nearly correspond with those taken previously. The deviations of the steering compass are taken by comparison with the standard compass, and cannot, perhaps, at any time be quite so exact as those of the standard, which is always fixed in its place on the bridge. It is a Board of Trade compass and a beautiful instrument. I think this compass could not be better placed, but the position of our steering compass is very objectionable, being so low.

** Feb. 23.—Not being quite satisfied with the deviations obtained on the 20th, I put the ship right round this morning early, and had as good a set of azimuth observations as I could wish for, the ship only just steering and the sea quite smooth. She was quite steadied on each point for a short time. I need not make any further remark on them than that they are suitable for comparison with my previous swings in this locality as well as with others further North and South, especially with those of Messrs. Towson and Rundell in Liverpool when the ship was new. This swing shows more deviation in the N.E. and S.E. quarters than I have noticed before.

"Simla," Captain W. Williams, Liverpool to Calcutta, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic		Standard Compass.		Steering Compass.	
				Dip.	Variation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
1860.	North. ° ′	East. ° ′	°		East. ° ′	° ′	° ′	° ′	° ′
Mar. 2	6 19	82 2	3 S.	...	0 30	S. 40 E.	2 39 W.	S. 39 E.	3 39 W.
5*	9 15	82 5	2 P.	...	0 50	N. 5 E.	0 18 W.	N. 4 E.	0 42 E.
	...	...	2 P.	...	„	N. 10 E.	0 17 E.	N. 8 E.	2 17 E.
6	10 32	81 50	0	...	0 55	N. 4 30 E.	0 55 E.	N. 4 E.	1 40 W.
	...	...	...	...	...	N. 3 E.	2 22 W.	N. 2½ E.	1 52 W.
	...	...	...	...	...	N. 5 W.	3 28 W.	...	...
9	14 1	81 49	5 P.	...	1 8	N. 25 30 E.	3 6 E.	N. 26 30 E.	2 6 E.
	...	...	...	...	...	N. 26 E.	2 55 E.	N. 26 E.	2 55 E.
	15 3	82 6	0	...	1 10	N. 23 30 E.	1 32 E.	N. 23 30 E.	1 32 E.
	15 8	82 10	„	...	„	N. 19 30 E.	0 57 E.	N. 20 E.	0 27 E.
	14 25	81 51	4 P.	...	1 8	N. 29 30 E.	3 55 E.	N. 29 30 E.	3 55 E.
	15 3	82 5	0	...	„	N. 29 E.	1 52 E.	N. 29 30 E.	1 22 E.
13	20 10	86 54	2 S.	...	2 0	N. 2 E.	1 25 W.	North	0 35 W.
	...	...	2 S.	...	...	N. 25 E.	3 3 E.	N. 23 E.	5 3 E.
	...	...	2 S.	...	...	N. 42 E.	3 33 E.	N. 45 E.	0 33 E.
	...	...	2 S.	...	...	N. 69 30 E.	1 32 E.	N. 73 E.	1 58 W.
	...	...	1 S.	...	...	S. 86 30 E.	1 45 E.	S. 85 E.	3 15 W.
	...	...	0	...	...	S. 43 30 E.	5 18 W.	S. 42 E.	6 48 W.
16	21 50	88 0	0	...	2 0	N. 0 30 W.	3 22 W.	N. 0 30 E.	3 22 W.
	...	...	„	...	...	N. 22 W.	7 4 W.	...	...
	...	...	„	...	...	N. 46 30 W.	7 27 W.	N. 51 W.	2 57 W.
	...	...	„	...	...	N. 67 W.	4 15 W.	N. 69 W.	2 15 W.
	...	...	„	...	...	S. 55 30 W.	7 52 E.	S. 59 W.	4 22 E.
			CALCUTTA TO LONDON.						
May 20†	22 0	88 0	2 P.	...	2 0	S. 25 30 W.	8 0 E.	S. 28 W.	5 40 E.
June 1	14 40	90 39	8 P.	...	„	S. 9 E.	3 52 E.	...	...
9	5 56	91 44	12 P.	...	1 30	S. 21 E.	4 23 E.	S. 22 E.	5 23 E.
11‡	1 0 South.	92 50	12 P.	...	1 10	S. 13 E.	6 56 E.	S. 12 E.	5 56 E.
13§	0 30	92 58	0	...	1 0	N. 16 30 E.	0 55 E.	N. 16 E.	1 25 E.
	...	...	0	...	„	N. 25 E.	1 30 E.	N. 26 E.	0 30 E.
	...	...	0	...	„	N. 69 E.	2 35 E.	N. 68 E.	3 35 E.
	...	...	0	...	...	N. 89 E.	2 10 E.	N. 87 E.	4 10 E.
	...	...	0	...	...	S. 67 30 E.	1 15 E.	S. 70 E.	3 45 E.
	...	...	2 P.	...	...	S. 43 E.	2 28 E.	S. 45 E.	4 28 E.
	...	...	2 P.	...	...	S. 21 E.	5 2 E.	S. 19 30 E.	3 32 E.
	...	...	0	...	...	S. 12 E.	6 15 E.	...	...
	...	...	3 P.	...	...	S. 2 30 W.	8 8 E.	S. 5 W.	5 38 E.
	...	...	3 P.	...	...	S. 20 30 W.	8 0 E.	S. 24 W.	4 30 E.
	...	...	3 P.	...	...	S. 42 30 W.	6 56 E.	S. 50 W.	0 34 W.
16	3 56	91 20	3 S.	...	0 25	S. 20 W.	8 20 E.	S. 25 W.	3 20 E.
	...	...	2 S.	...	...	S. 41 30 W.	6 53 E.	S. 49 W.	0 37 W.
	...	...	2 S.	...	...	S. 71 30 W.	1 34 E.	S. 76 W.	2 56 W.
	...	...	0	...	...	N. 84 W.	2 17 W.	N. 85 W.	1 17 W.
	...	...	0	...	...	N. 55 W.	7 45 W.	N. 58 W.	4 45 W.
					West.				
19	7 46	88 42	10 S.	...	0 15	S. 21 W.	7 15 E.	S. 30 W.	1 54 W.
	...	...	7 S.	...	...	S. 48 W.	5 15 E.	S. 59 W.	5 47 W.
20	9 47	86 35	14 S.	...	0 55	S. 31 30 W.	6 52 E.	S. 43 W.	4 36 W.
22	13 13	79 32	4 S.	...	2 20	S. 58 W.	5 34 E.	S. 66 W.	2 26 W.
28	21 0	60 27	8 S.	...	9 5	S. 43 W.	5 43 E.	S. 55 W.	6 17 W.
	20 18	61 26	12 S.	...	8 25	S. 50 W.	4 22 E.	S. 62 W.	7 38 W.
	21 0	60 27	4 S.	...	...	S. 73 W.	1 49 E.	S. 82 W.	7 11 W.
June 29‖	21 53	58 23	6 S.	...	8 25	S. 54 W.	4 47 E.	S. 66 W.	7 13 W.

* March 5.—To-day at noon the northern polarity begins to show itself in neutral iron. It was quite neutral from the equator to the S.E. end of Ceylon. To-day the iron bolt deflected the small needle 4 points, therefore taking the mean of Latitudes 2° 13′ S., Long. 82° 29′ E., our position on the 17th February, where the upper end of the bolt attracted the South as much as it now attracts the North end of the needle, and Lat. 8° 50′ N., Long. 82° 21′ E., would give mean Lat. 3° 21′ N. for the position of the magnetic equator in Long. 82° 16′ E. Those who know better where it is than I do no doubt will smile at my makeshift way of finding the magnetic equator; however it answers my purpose, and I shall expect an error from heeling accordingly. The ship herself has been as perplexing in her polarity as anything could be for the last fortnight. With her head East or West the top of shell plate on both sides could not be discovered to have any attraction for the small compass applied to them from inboard, the same fore and aft; but to-day, with her head North, the fore end from main mast forward on both sides attracted the South point, and the after end attracted the North end of the compass needle round the stern very strongly. Our masts have very strong attraction already.

† Left the pilot at the Sandheads on the morning of the 24th May. The same evening I was taken ill of fever and have been unable to take any observations for ten days.

‡ June 11.—To-day I was too late with my experiments for the magnetic equator, for the spare norman attracted the S. point of the needle those points, so that we are in South dip. There is considerable difference in the deviations on S. by E. to what was observed going up the Bay. Whether the change is due to the 12° heel we had to-day I cannot find until I get observations without heel on the same point in this locality.

§ June 13.—By the azimuths this morning it appears the difference of deviation referred to above does not arise from the 12° heel, but from a change having taken place since we were going up the Bay. Both compasses are affected in the maximum 8° in the S.E. quarter, decreasing gradually to N.N.E. by the East and to S.S.W. We discharged our cargo in Calcutta with our head to the South, except eight days we were at Howrah with our head to the North. Can it be that our iron cargo had an influence on our compasses in this part going up, and had no effect in the South Atlantic. Or can it be the increased power that may have been imparted to the ship's iron while discharging machinery, &c., with the accompanying jerks, in the northern hemisphere. They are continually on the move, however little, in one way or another. The influence exerted is so varied by the different circumstances and conditions a sailing vessel is subject to, more especially the change of Latitude and the error from heeling and remaining for some time in port in one position, as well as sailing on the same tack nearly in the same course across the Trades, that they require continual watching, and then the courses steered after applying all the corrections that can be got at will not be the correct course actually made probably in nine cases out of ten in high latitudes.

‖ June 29.—By this morning's azimuths the compasses appear to have altered their deviations considerably in the N.W. quarter. The same disturbing force affects both alike, increasing their West deviation.

"Simla," Captain W. Williams, Calcutta to London, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel.	Approximate Magnetic		Standard Compass.		Steering Compass.	
			P. Port, S. Starboard.	Dip.	Variation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
	South. ° ′	East. ° ′	°		West. ° ′	°	° ′	°	° ′
1860.									
June 29	...	...	4 S.	...	10 50	S. 72 W.	1 43 E.	S. 80 W.	6 17 W.
	...	...	4 S.	...	,,	S. 88 W.	1 5 W.	N. 84 W.	9 5 W.
	...	...	4 S.	...	,,	N. 62 W.	8 10 W.	N. 60 W.	10 10 W.
	...	...	0	...	,,	N. 34 W.	15 30 W.	N. 37 W.	12 30 W.
July 1	24 14	53 30	0	...	14 25	N.	9 11 W.	N.	9 11 W.
	...	...	...	...	...	N. 10 E.	7 39 W.	N. 9 30 E.	7 9 W.
	...	...	...	...	...	N. 45 30 E.	2 58 W.	N. 44 E.	1 28 W.
	...	...	...	...	...	N. 63 E.	2 21 W.	N. 64 E.	3 21 W.
	...	...	...	...	...	N. 86 E.	1 7 W.	N. 83 E.	1 53 E.
	...	...	...	...	...	S. 71 30 E.	0 47 E.	S. 77 E.	6 17 E.
	...	...	...	...	...	S. 70 W.	2 17 E.	S. 80 W.	7 43 W.
	...	...	...	...	...	N. 87 W.	1 11 W.	N. 79 W.	9 11 W.
	...	...	4 S.	...	...	N. 67 30W.	6 32 W.	N. 64 W.	10 2 W.
	...	...	0	...	...	N. 42 30W.	12 1 W.	N. 46 W.	8 31 W.
	...	...	...	...	...			S. 93 W.	7 6 W.
5	26 45	48 13	4 P.	...	18 35	S. 85 W.	0 54 E.	S. 13 E.	14 0 E.
6†	28 6	45 18	0	...	20 50	S. 11 E.	12 0 E.	S. 30 W.	5 7 E.
	...	...	0	...	...	S. 22 W.	13 7 E.	S. 58 W.	3 10 W.
	...	...	0*	...	...	S. 34 30 W.	10 20 E.	S. 92 W.	7 5 W.
	...	...	5 P.	...	...	S. 83 W.	1 25 E.	N. 41 W.	11 38 W.
8	28 48	42 28	10* S.	...	22 20	N. 46 W.	9 38 W.		
9	28 31	41 50	0	...	22 40	S. 5 E.	14 33 E.	S.	9 33 E.
	...	...	0	...	...	S. 23 W.	15 27 E.	S. 30 W.	8 27 E.
	...	...	0*	...	...	S. 45 W.	9 42 E.	S. 57 W.	2 18 W.
	...	...	0	...	...	N. 88 W.	0 25 E.	N. 81 W.	6 35 W.
	...	...	0	...	...	N. 68 W.	5 50 W.	N. 66 W.	7 50 W.
	...	...	0*	...	...	N. 41 W.	12 0 W.	N. 44 W.	9 0 W.
	...	...	0*	...	...	N. 47 W.	11 45 W.	N. 51 W.	7 45 W.
	...	...	0	...	...	N. 27 W.	12 57 W.	N. 31 W.	8 57 W.
10	29 30	40 43	10 P.	...	23 55	S. 5 W.	19 15 W.	S. 4 W.	20 15 E.
	29 48	40 40	...	...	...	S. 5 W.	19 17 W.	S. 3 W.	21 17 E.
11	29 36	39 25	6 S.	...	24 20	N. 81 W.	1 35 W.	N. 74 W.	8 35 W.
12	30 13	36 28	2 P.	...	25 35	N. 93 W.	0 55 W.	N. 82 W.	11 55 W.
13	31 21	33 57	2 S.	...	26 40	N. 4 30 E.	10 26 W.	N. 5 E.	10 56 W.
	...	...	2 S.	...	...	N. 47 E.	4 20 W.	N. 44 E.	1 20 W.
	...	34 7	2 S.	...	...	N. 72 W.	6 16 W.	N. 69 W.	9 16 W.
	...	33 57	0	...	...	N. 33 W.	14 18 W.	N. 34 W.	13 18 W.
15	31 32	31 6	0	...	28 0	S. 67 W.	6 30 E.	...	...
	31 46	30 37	0	...	28 10	N. 80 W.	0 10 E.	N. 74 W.	5 50 W.
17	35 50	24 0	4 S.	...	30 0	N. 8 E.	7 0 W.	N. 7 E.	6 0 W.
	...	...	4 S.	...	...	S. 24 W.	15 56 E.	S. 30 W.	9 56 E.
22	34 58	16 53	6 S.	...	30 0	N. 5 W.	6 35 W.	N. 2 W.	8 35 W.
23‡	33 4	15 28	6 P.	...	29 30	N. 16 E.	10 41 W.	N. 10 E.	4 41 W.
	33 20	15 40	7 P.	...	29 15	N. 30 E.	8 15 W.	N. 25 E.	3 15 W.
	32 37	15 12	6 P.	...	29 10	N. 5 W.	12 20 W.	N. 11 W.	6 20 W.
24	31 0	13 0	0	...	28 50	N. 14 30 E.	8 27 W.	N. 9 E.	2 57 W.
	31 18	13 27	5 S.	...	,,	N. 8 30 W.	10 34 W.	N. 11 W.	8 4 W.
	...	...	7 S.	...	...	N. 7 30 W.	10 34 W.	N. 9 W.	9 4 W.
25	29 48	11 58	4 P.	...	28 30	N. 25 E.	6 11 W.	N. 21 30 E.	2 41 W.
	...	...	...	...	...	N. 51 E.	3 32 W.	N. 49 E.	1 32 W.
	...	...	0	...	...	N. 64 E.	3 0 W.	N. 63 E.	2 0 W.
	...	...	0	...	...	S. 81 E.	0 52 W.	S. 84 E.	2 8 E.
	...	...	0	...	...	S. 69 E.	0 21 W.	S. 75 E.	5 39 E.
	...	...	0	...	...	N. 44 W.	9 19 W.	N. 46 W.	7 19 W.
26	29 31	11 59	4 S.	...	28 30	N. 58 E.	1 50 E.	N. 55 E.	1 10 E.
	...	...	7 S.	...	...	N. 60 E.	2 4 W.	N. 58 E.	0 4 W.
	...	...	13 S.	...	...	N. 62 E.	0 40 W.	N. 60 E.	1 20 E.
	...	...	11 S.	...	...	N. 64 E.	0 48 W.	N. 62 E.	0 22 E.
27	28 26	10 30	6 P.	...	28 30	N. 47 W.	11 20 W.	N. 52 W.	6 20 W.
	...	...	10 P.	...	...	N. 45 W.	12 32 W.	N. 50 W.	7 32 W.
	...	...	6 P.	...	...	N. 37 W.	14 7 W.	N. 42 W.	9 7 W.
28	28 18	10 32	4 S.	...	28 30	N. 11 30 W	11 13 W.	N. 15 W.	7 43 W.
31	23 6	7 22	2 S.	...	27 5	N. 20 W.	11 4 W.	N. 22 W.	9 4 W.
Aug. 1	22 2	5 25	2 S.	...	26 45	N. 16 W.	10 50 W.	N. 19 W.	7 50 W.
2	20 36	4 59	4 S.	...	26 40	N. 32 30 E.	2 45 W.	N. 32 E.	2 15 W.
	...	...	3 S.	...	...	N. 44 30 E.	2 30 W.	N. 44 30 E.	2 30 W.
3	19 51	4 50	2 S.	...	26 30	N. 1 30 E.	6 46 W.	N. 2 W.	3 16 W.
	...	...	2 S.	...	...	N. 49 W.	7 7 W.	N. 52 W.	4 7 W.
	...	...	2 S.	...	...	N. 43 W.	9 15 W.	N. 49 W.	3 15 W.
		West.							
5	17 50	0 30	8 S.	...	25 45	N. 35 W.	9 39 W.	N. 41 W.	3 39 W.
6	16 55	2 45	3 S.	...	24 55	N. 38 30 W.	9 15 W.	N. 42 W.	5 45 W.
7	15 58	4 51	0	...	24 10	N. 48 W.	8 29 W.	N. 52 W.	4 29 W.
9§	13 6	8 37	0	...	23 0	N. 8 W.	8 53 W.	N. 10 30W.	6 23 W.

† July 6.—The error from heeling is apparent by comparing the observations marked * with one another; the weather sid drawing the South, is contrary to its effect in the Northern hemisphere, as noted in several places in this register.

‡ July 23.—Two days' azimuths on N. ½ W., compared with the one yesterday on the same point, with heel on different tacks show a difference of 6° in the deviation of the standard compass.

§ Aug. 9.—At noon to-day, on applying my small compass to the iron bolt, as usual, I find the north end drawing the south 3 points on the east and west side of it. Iron standards under skidds neutral. Top of shell plate drawing the south end of needl rather strong as yet. I find the upright iron that retained the northern polarity longest also receives it the soonest on the retur voyage; so I suppose the opposite pole at any time in its own latitude cannot be so strong in that iron as in neutral iron, when th magnetic current is free.

"Simla," Captain W. Williams, Calcutta to London, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic Dip.	Approximate Magnetic Variation.	Standard Compass. Ship's Head by Compass.	Standard Compass. Deviation.	Steering Compass. Ship's Head by Compass.	Steering Compass. Deviation.
	South.	West.			° ′				
1860.	° ′	° ′	°		West.	° ′	° ′	° ′	° ′
Aug. 10	10 53	10 38	0	...	22 20	N. 15 W.	10 10 W.	N. 18 W.	7 10 W.
11†	9 59	11 32	0	...	22 0	N. 15 W.	9 30 W.	N. 18 W.	6 30 W
12	9 1	12 43	0	...	21 40	N. 13 W.	10 1 W.	N. 16 W.	7 1 W.
13‡	7 57	13 46	0	...	21 10	N. 31 E.	3 19 W.	N. 31 E.	3 19 W.
	...	...	0	...	...	N. 32 W.	10 12 W.	N. 37 W.	5 22 W.
	...	...	...	...	...	N. 8 30 W.	8 53 W.	N. 12 W.	5 23 W.
16§	3 0	18 29	0	...	18 40	N. 42 30 W.	9 47 W.	N. 48 W.	4 17 W.
	...	...	0	...	...	N. 8 W.	9 57 W.	N. 12 W.	5 57 W.
17‖	1 52	19 40	0	...	17 50	N. 9 W.	9 58 W.	N. 13 W.	5 58 W.
	1 22	20 0	0	...	17 45	N. 10 W.	10 31 W.	N. 13 30 W.	7 31 W.
18¶	0 33	20 45	2 S.	...	17 20	N. 8 W.	10 25 W.	N. 10 30 W.	7 55 W.
	North.								
21	7 6	27 5	9 S.	...	15 25	N. 1 W.	10 21 W.	N.	11 21 W.
	8 10	27 3	8 S.	...	„	N. 25 E.	6 45 W.	N. 29 E.	10 45 W.
	7 6	27 5	*9 S.	...	15 20	N. 7 W.	11 14 W.	N. 7 30 W.	10 44 W.
22	9 4	26 30	*0	...	15 30	N. 30 W.	10 0 W.	N. 41 W.	3 0 W.
23	9 38	26 33	2 S.	...	15 30	N. 9 30 W.	8 58 W.	N. 11 W.	6 58 W.
24	10 30	26 41	6 S.	...	15 35	N. 83 E.	1 51 W.	N. 87 E.	5 51 W.
	...	...	2 P.	...	...	S. 47 W.	6 35 E.	S. 51 W.	2 35 E.
	...	...	4 P.	...	...	S. 85 W.	0 27 E.	S. 82 W.	2 27 E.
	...	...	0	...	...	N. 72 W.	3 32 W.	N. 75 W.	0 32 W.
	10 20	26 39	*2 S.	...	...	N. 8 W.	8 39 W.	N. 10 W.	6 39 W.
27	12 29	27 29	2 S.	...	15 30	N. 17 30 E.	3 10 W.	N. 17 E.	2 40 W.
	...	...	...	...	...	N. 21 E.	4 33 W.	N. 23 30 E.	7 3 W.

Aug. 11.—The upper end of my bolt to-day at 2 P.M., latitude 9° 52′ S., longitude 11° 53′ W., only deflected the needle one point each side.

Aug. 13.—At 3 P.M. this day, in latitude 7° 40′ S., longitude 14° 5′ W., I could not discern any attraction in the upper end of the for either point of the compass. The standard under the skidd attracts the north end 2 points on each side. The starboard of shell plate between the main and mizen masts attracts the south end slightly; the same iron abaft the foremast is stronger 2 points. The portside (leeside) forward attracts the north end of the compass slightly, and the port quarter attracts it strongly. e starboard side the same, but not so strong. Ship's head correct magnetic, N. 16 W., no heel.

Aug. 14.—Bolt neutral.

Aug. 15.—Bolt neutral.

Aug. 16.—Lat. 2° 49′ S., Long. 18° 38′ W. I tried to find to-day how high a compass would have to be so as not to be affected h the ship's iron on this course. The place chosen was immediately over the standard compass. The following is the lt :—

Height from card of standard compass.	Ship's head by trial compass.	Ship's head by standard.
	°	° ′
10 ft. 2 in.	N. 17 W.	N. 10 0 W.
7 „ 2 „	N. 8 W.	N. 12 30 W.
3 „ 9 „	N. 13 W.	N. 11 30 W.

The ship at the time being upright. This shows 3° 0′ W. deviation at the 1st height,
5° 30′ W. „ 2d „
8° 30′ W. „ 3d „

The deviation of the standard compass is taken as 10° W.

Aug. 17.—The bolt begins to attract the north end of the needle about ¾ of a point on each side.

Aug. 18.—Lat. 0° 12′ S., Long. 21° 3′ W. My bolt to-day at noon drew the north end of the needle fully 1¼ points, so that hink I may now put the ship down as in northern dip. By taking means I make the magnetic equator in about Lat. 5° S., ng. 16° W. Can this be anything near the mark? I have no means of ascertaining. Our steering compass is considerably ected by the starboard heel which the ship has to-day. The standard is also affected slightly. This, no doubt, arises from the t side having a stronger attraction than the starboard side (as I have observed coming on from St. Helena), but I think if we re to heel over as many degrees to port to-day in this place it would not alter the upright deviation of the standard anything; it ght the steering compass. What is the cause of our port side having so much more polarity than the other in these latitudes? n it be that it was the south side of the ship all the way from the equator in the Indian Ocean to this, and therefore becoming the rth pole of the ship? The ship was also built with her head to the westward. I expect when we come to steer from the Western ands home, turning the starboard side of the ship to the South, this deviation on the north point will dwindle away and show lf on some points in the South the same as it did last voyage. The deviations have kept remarkably steady since we entered the uth-east trades on this side, the forces as it were counterbalancing or sustaining each other. Had our course been to the N.E. er rounding the Cape I think the effect would have been different. Sailing for some days with the same side of the ship towards her pole causes not only a difference in the deviations on the different points with the ship upright, but also a difference in those ich arise from heeling, increasing them when heeling to one side, and decreasing them on the other; for example, steering from e edge of the S.E. trades in the South Atlantic toward the Cape, showing the starboard side of the ship to the South for a number days or weeks, the wind comes out East, ship's head South, on the port tack, heeling 10° to starboard, bringing the port side re on a level with the compass, which side having a stronger attraction for the south point of the needle than the starboard side, ing to the growing tendency in the ship to show dissimilar poles according to hemisphere and dip, causing the south point to viate westerly (from the upright error) towards the upper side *more* than it would easterly (from the upright error) were the rboard side the upper side with port heel, as the attractive power of that side has been weakened by the induced polarity of the rth. The difference in error arising from heeling, 10° to port to 10° to starboard, found when swinging ship in Liverpool, may, think, be accounted for in the same way. But this is of minor consequence compared with the other sources of error, as it cannot ake much difference in the course by allowing the same *amount* of error (+ and − of the upright) for heeling to port or starboard the point in question. By far greater in importance is it to allow the error from heeling in the southern hemisphere in the *right ay* with a contrary sign to what it was in the northern hemisphere or in north dip. The omitting this in our ship would cause an ror of nearly two points off the Cape with 10° of heel.

The observations which I have recorded may be relied upon as correct within a degree at the most, the majority within less, though showing apparent discrepancies; these arise from varied magnetic influences under differing circumstances. Any fresh ror from any cause is easily detected in the working out the observations from day to day, and should I find any apparent screpancies I generally take another sight to prove them, or I do not put the observation down until I am satisfied of its rrectness. Should any doubt arise about the correctness of any observation, it would be a pleasure to me to give any informa-on or to supply the materials for examination, as I preserve all in pen and ink.

"Simla," Captain W. Williams, Calcutta to London, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic		Standard Compass.		Steering Compass.	
				Dip.	Variation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
1860.	North. ° ′	West. ° ′	°		West. ° ′	° ′	° ′	° ′	° ′
Aug. 27	...	...	2 S.	...	...	N. 38 E.	3 51 W.	N. 33 E.	7 51 W.
	...	27 26	2 P.	...	...	S. 45 W.	5 2 E.	S. 47 W.	3 2 E.
28†	13 23	27 42	0	...	15 45	N. 8 W.	10 28 W.	N. 12 W.	6 28 W.
29	14 10	28 15	*8 P.	...	15 35	N. 30 W.	9 26 W.	N. 40 W.	0 34 E.
	...	28 11	3 P.	...	„	N. 8 30 W.	8 36 W.	N. 14 W.	3 6 W.
30‡	15 15	30 6	13 P.	...	15 0	N. 40 W.	6 57 W.	N. 52 W.	5 3 E.
	...	...	14 P.	...	...	N. 30 W.	6 28 W.	N. 42 W.	5 32 E.
31	16 5	31 46	5 P.	...	14 20	N. 41 W.	9 14 W.	N. 52 30 W.	2 16 E.
	16 20	32 20	3 P.	...	„	N. 37 30 W.	10 30 W.	N. 48 W.	0 0
	...	...	3 P.	...	„	N. 39 W.	10 2 W.	N. 49 W.	0 2 W.
	16 0	32 0	0	...	„	N. 44 W.	11 23 W.	...	...
Sept. 1	16 25	33 1	0	...	14 15	N. 3 E.	7 40 W.	N. 6 30 E.	11 10 W.
	...	...	0	...	„	N. 19 30 E.	5 45 W.	N. 21 E.	7 15 W.
	16 24	33 1	0	...	„	N. 31 30 E.	4 12 W.	N. 38 E. ?	10 42 W. ?
	16 25	„	0	...	„	N. 35 W.	10 12 W.	N. 44 W.	1 12 W.
3	19 0	33 39	6 P.	...	14 15	N.	7 30 W.	N. 6 W.	1 30 W.
5	23 18	36 12	9 P.	...	15 5	N. 5 W.	7 40 W.	N. 14 W.	1 40 E.
6	24 7	37 3	0	...	„	N. 1 W.	10 3 W.	N. 6 W.	5 3 W.
	...	...	...	...	...	N. 27 30 E.	2 57 W.	N. 33 E.	8 27 W.
	...	...	...	...	...	S. 40 E.	2 58 E.	S. 35 E.	2 2 W.
	...	...	...	...	...	S. 15 E.	4 28 E.	S. 10 E.	0 32 W.
	...	...	...	...	...	S. 5 W.	8 27 E.	S. 9 W.	4 27 E.
	...	...	...	...	...	S. 12 W.	9 10 E.	S. 14 W.	7 10 E.
	...	...	...	...	...	S. 24 W.	9 20 E.	S. 25 W.	8 20 E.
	...	...	...	...	...	S. 50 W.	7 50 E.	S. 50 W.	7 50 E.
	...	...	...	...	...	S. 59 W.	5 47 E.	S. 58 W.	6 47 E.

† Aug. 28.—Lat. 13° 34′ N. Long. 27° 42′ W. The port and starboard sides of the ship appear to attract the needle with equal force here. My bolt experiment is out of limit some days since, drawing the north end of the needle at right angles to its true direction.

‡ Aug. 30.—Lat. 15° 25′ N. Long. 30° 20′ W. To-day's and yesterday's azimuths are affected by the heeling of the ship according to north dip. The weather side of the ship drawing the north end of the needle and diminishing westerly deviation. It is also observable that the heeling from 0° to 8° does not affect the compasses as much as the heeling from 8° to 14° does. This is easily explained were it necessary. Our steering compass does not show so much difference as the standard does, because it is so low, although the total error from heeling by it is more than on the standard on this course. Were the ship's head north the error of the standard would be still more, but I question if the error of the steering compass would increase to that point indeed I think it would be less, as the upright iron (now on the points observed to-day) round the starboard or weather quarter acts upon the north end of the needle with the greatest leverage. I should also expect the maximum error from heeling to show itself on different points in different places, perhaps in the two hemispheres changing quarters S.E. for S.W. and N.E. for N.W. but I have not sufficient suitable observations to prove this. Does heeling affect the compass most, under all changes of dip, when the iron that attracts is on the same horizontal level with the needle? If we were to continue our course north to the neighbourhood of the magnetic pole would the effect of heeling gradually increase to that point? If so, in what ratio, or by what rule? Can it be found without observation?

I think this error from heeling might be corrected in our steering as well as in our standard compass by fixing a bolt of neutral iron vertically on each side of the compass, with their centre or neutral part on the same level as the needle when the ship is upright; say their length to be from 3 to 5 feet at a distance from the compass determined by the amount of error to be corrected. For example, steering north here in the northern hemisphere with the wind on the starboard side, heeling us over, say 10° to port, would cause the weather side to attract the north end of the needle, drawing it to the East. But by introducing the bolt to windward of the compass, fixed as above stated, its lower half being now risen by the ship heeling would repel the north end of the needle so as to balance the attraction of the ship's side. Perhaps one bolt would answer, but the joint effect of two one to leeward and one to windward, would be best and safest. There are several slight objections that might be raised against this plan, but I am persuaded that it would cure nine-tenths of the error from heeling in any part of the globe. If we had the in this ship and a vertical iron pillar amidships, and before the compass with its upper end at the same angle below the compass as the mean angle of the general attractive force abaft, and with the Astronomer Royal's magnets fixed correctly on the magnetic equator, our steering compass I think would perform all the voyage round without much alteration; but now it has regular circular rotation of error right round the compass in the course of the voyage. To explain myself, I mean that "no deviation" and "greatest deviation" visits all points of the compass in some part of the voyage out or home. Mr. Rundell was kind enough to suggest and was prepared to fix the midship pillar before we left Liverpool this voyage, had we not been in such a hurry to get away when the ship floated after being neaped and a fine fair wind blowing. I may here again remark that this error from heeling is the worst of the whole to correct for and to guard against its effect. It is not so much the difficulty of correcting the different courses *after* they have been steered. This can be done with tolerable correctness if care has been taken by the officer of the watch to note down every hour the mean course made by the compass, and also the mean degree of heel the ship has taken while being steered on that course. (A column for that purpose should be upon the log slate and log book of every iron ship; there should also be some simple contrivance in a conspicuous position to show the heel. The best place to fix it would be in the binnacle before the helmsman, that it might be read by the light of the binnacle lamp in the night.) The chief difficulty is to keep the ship on a given true course from headland to headland, or from light to light; indeed it is impossible so to do, as the course cannot be altered continually and simultaneously with every puff and squall that comes to put a crank ship over from 0° to 5° in this puff from 0° to 10° in the next may be, and so on to 16° or 20° heel, and that many times in a watch, thereby throwing the ship from her real course in a zigzag manner. Great care and watchfulness are necessary here not only on the part of the master but also the officers, and they should be as conversant in it as the master, as he cannot be always on deck. Fortunately our course up the English channel is on those points on which heeling does not affect our standard compass. I cannot say this perhaps of the steering compass.

I have laid down the following rule for my own guidance *in this ship* to assist the memory to guard against error from heeling as to be in a better position to apply it, so as to preserve a given set course in narrow channels or near land.

Northward.—*Keep away* on BOTH TACKS to preserve a straight course when the ship *increases* her *heel* on either tack.

Ship's head southward.—*Luff* on both tacks to preserve a straight course with increasing heel.

2d. In the southern hemisphere or with South dip. Reverse the order. Ship's head northward, *Luff*. Ship's head southward *Keep away*.

Or thus in North Magnetic Latitude with ship's head northward, the ship comes up or to windward of the point or light steered for as the ship heels over on either tack. With her head southward she goes to leeward of her port, therefore luff to fetch it if she increases her heel.

The above is the rule when the course has been set for upright or even beam sailing, but if the course has been set for sailing with a certain degree of heel on either tack, and the ship as she is steered on that course *decreases* her heel, it is obvious that the reverse of the rule must be adopted, "Luff" for "Keep away" and "Keep away" for "Luff."

"Simla," Captain W. Williams, Calcutta to London, 2d Voyage—*continued.*

Date.	Lat.	Long.	Heel. P. Port, S. Starboard.	Approximate Magnetic		Standard Compass.		Steering Compas .	
				Dip.	Variation.	Ship's Head by Compass.	Deviation.	Ship's Head by Compass.	Deviation.
1860.	North. ° ′	West. ° ′	°		West. ° ′	° ′	° ′	° ′	° ′
Sept. 6	...	...	...	...	...	S. 71 W.	4 23 E.	S. 67 W.	8 23 E.
	...	...	...	...	...	S. 85 30 W.	1 2 E.	S. 80 W.	5 32 E.
	...	...	...	...	...	N. 48 W.	8 20 W.	N. 60 W.	3 40 E.
	...	...	...	...	...	N. 25 W.	10 12 W.	N. 36 W.	0 48 E.
7	24 20	37 5	...	...	...	N.	4 50 W.	N. 5 W.	9 20 W.
	...	...	...	...	...	N. 24 30 E.	3 42 W.	N. 28 E.	7 12 W.
	...	...	...	...	...	N. 45 E.	3 50 W.	N. 53 E.	11 50 W.
	...	...	...	...	...	N. 64 E.	4 30 W.	N. 72 E.	12 30 W.
	...	...	...	...	...	N. 83 E.	3 30 W.	N. 89 30 E.	10 0 W.
12	32 36	38 9	8 P.	...	20 35	N. 15 E.	2 47 W.	N. 12 E.	0 13 E.
13	33 24	38 30	6 P.	...	21 15	N. 14 E.	3 45 W.	N. 11 E.	0 35 W.
	33 56	38 35	5 P.	...	...	N. 10 30 W.	6 55 W.	N. 25 W.	6 35 E.
14	37 27	39 48	*10 P.	...	22 20	N. 13 30 E.	0 10 E.	N. 5 E.	8 40 E.
15†	36 54	39 6	*3 P.	...	23 35	N. 8 E.	3 25 W.	N. 4 E.	0 35 E.
	...	39 2	4 P.	...	...	N. 45 E.	0 21 W.	N. 55 30 E.	10 51 W.
	...	„	4 P.	...	...	N. 59 E.	0 18 E.	N. 70 30 E.	11 12 W.
	...	...	4 P.	...	...	N. 73 E.	0 30 W.	N. 85 E.	12 30 W.
16	37 26	39 25	*0	...	24 0	N. 41 E.	2 50 W.	N. 52 E.	13 50 W.
	...	...	...	...	...	N. 64 30 E.	1 15 W.	N. 75 E.	11 45 W.
	...	...	...	...	...	N. 87 E.	2 3 W.	S. 81 E.	14 3 W.
	...	...	...	...	...	S. 66 E.	1 30 W.	S. 57 30 E.	10 0 W.
	...	...	...	...	...	S. 48 E.	0 30 W.	S. 39 E.	9 30 W.
17	37 24	38 36	*6 P.	...	24 20	N. 40 E.	1 25 E.	N. 50 E.	8 35 W.
	37 34	38 46	0	...	...	S. 20 W.	11 40 E.	S. 23 W.	8 40 E.
18	38 0	38 50	4 P.	...	24 25	N. 22 30 E.	2 22 W.	N. 24 E.	3 52 W.
20	40 22	35 43	0	...	27 0	N. 84 E.	0 50 W.	N. 96 E.	12 50 W.
21	42 0	32 48	0	...	28 50	N. 88 E.	0 59 W.	S. 79 30 E.	13 29 W.
22	41 20	29 35	5 P.	...	28 0	N. 12 E.	2 8 W.	N. 7 E.	2 52 E.
	...	...	7 S.	...	...	S. 45 E.	7 50 E.	S. 39 E.	0 50 E.
	...	...	10 S.	...	...	S. 30 E.	11 44 E.	S. 20 E.	1 44 E.
23	41 34	29 17	6 S.	...	28 0	S. 86 E.	0 0	S. 75 30 E.	10 30 W.
24	42 0	28 0	12 S.	...	28 25	S. 88 E.	1 25 E.	S. 78 E.	8 35 W.
	...	...	9 S.	...	...	S. 65 E.	2 55 E.	S. 67 E.	5 5 W.
25	42 43	24 31	5 S.	...	28 10	N. 89 E.	0 8 W.	N. 78 E.	11 8 W.
27	44 36	15 59	8 S.	...	26 50	N. 83 E.	0 27 E.	N. 94 E.	10 33 W.
28	45 16	12 40	8 S.	...	25 10	S. 84 E.	1 3 E.	S. 73 E.	9 5 W.
	...	...	8 S.	...	...	S. 73 E.	4 18 E.	S. 64 E.	3 42 W.
30	45 20	9 38	10 P.	...	24 15	N. 57 W.	3 35 W.	N. 76 W.	15 35 E.
	45 24	„	7 P.	...	...	N. 25 W.	9 36 W.	N. 41 W.	6 24 E.
Oct. 1	45 28	11 7	0	...	24 45	N. 2 30 W.	10 55 W.	N. 9 W.	4 25 W.
	...	...	...	...	...	N. 28 E.	6 25 W.	N. 37 30 E.	8 55 W.
	...	...	...	...	...	N. 47 E.	4 25 W.	N. 53 E.	10 55 W.
	...	...	...	...	...	N. 54 E.	3 0 W.	N. 62 E.	11 0 W.
	...	...	...	...	...	N. 74 30 E.	2 7 W.	N. 87 E.	14 37 W.
	...	...	...	...	...	S. 88 E.	0 8 W.	S. 77 30 E.	10 38 W.
	...	...	...	...	...	S. 65 30 E.	2 32 E.	S. 57 E.	5 58 W.
	...	...	...	...	...	S. 50 E.	3 33 E.	S. 40 E.	6 27 W.
	...	...	...	...	...	S. 22 30 E.	7 42 E.	S. 16 E.	1 12 E.
	...	...	...	...	...	S. 1 30 W.	11 35 E.	S. 4 W.	9 5 E.
	...	...	?	...	...	S. 19 W.	13 15 E.	S. 20 30 W.	11 45 E.
	...	...	...	...	...	S. 45 W.	9 45 E.	S. 45 W.	9 45 E.
	...	...	...	...	...	S. 66 W.	5 45 E.	S. 59 W.	12 45 E.
	...	...	...	...	...	S. 90 W.	0 15 E.	S. 70 W.	13 15 E.
	...	...	...	...	...	N. 62 W.	5 15 W.	N. 80 W.	12 45 E.
	...	...	...	...	...	N. 45 30 W.	10 24 W.	N. 65 30 W.	8 36 E.
	...	...	...	...	...	N. 23 W.	11 56 W.	N. 39 W.	4 4 E.
4	47 12	7 50	0	...	23 50	N. 19 30 W.	11 34 W.	N. 35 W.	3 56 E.

†Sept. 15.—Lat. 36° 57′ N., Long. 39° 2′ W. Those azimuths marked * show the effect of heeling to be more on the steering compass than I had anticipated; on this course it amounts to 1° for every degree of heel, and to half a degree to each degree of heel by the standard compass.

Note.—The following is an approximate statement of the cargo on board during the 2nd outward voyage and on the 3rd outward voyage from London in November 1860.

2nd Voyage.	3rd Voyage.
About 100 tons large machinery, fore and aft on the orlop deck.	About 800 tons railway bars, fore and aft.
„ 200 „ railway bars, fore and aft.	„ 600 „ small iron in cases.
„ 130 „ railway wheels and axles; the axles athwart ship and between decks.	„ 500 „ machinery small.
„ 1,100 „ railway bars in hold, fore and aft.	
„ 200 „ large girders bridge work, fore and aft.	
„ 200 „ small iron in cases.	

With the first-named cargo the mean quadrantal deviation of the standard compass on the four point courses was about 6° with second iron cargo, and without iron cargo it is about 3°.

NOTE RESPECTING THE "SIMLA."

It is worthy of record, as illustrating some of Captain Williams's remarks on the magnetism of the "Simla," as well as various statements made by other observers, that the deviation of the standard compass towards the stern was about 9° greater after she was loaded in London, November 1860, than had previously been observed: while loading she lay with her head to the northward. The steering compass does not show the same effect, but the attraction to the stern was greater by about 4° than when she was loaded at Liverpool in the previous year with her head to the westward.

W.W.R.

"APHRODITA," CAPTAIN HUGH STEWART.

LIVERPOOL TO CALCUTTA. First Voyage.

Date.	Lat.	Long.	Dip.	Heel. P. Port. S. Starboard.	Admiralty Compass. Ship's Head. By Compass.	Admiralty Compass. Ship's Head. Correct Magnetic.	Admiralty Compass. Observed Deviation.	Admiralty Compass. Deviation at Liverpool.	Admiralty Compass. Difference.	Compass over Companion. Observed Deviation.	Compass over Companion. Deviation at Liverpool.	Compass over Companion. Difference.	Compass under Compani Observed Deviation.	Compass under Compani Deviation at Liverpool.	Compass under Compani Diff ence.
1858 Aug.	South. ° ′	West. ° ′		°	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
30	1 21	19 29	..	10 S.	S. 34 0 W.	S. 34 30 W.	0 30 E.	3 45 W.	4 15 E.	4 30 E.	1 45 E.	2 45 E.	8 30 E.	2 30 E.	6
31	3 48	20 29	..	5 S.	S. 17 0 W.	S. 14 0 W.	3 0 W.	9 30 W.	6 30 E.	3 0 E.	0 15 E.	2 45 E.	11 0 E.	0 30 E.	10 3
Sept. 2	8 16	22 30	..	6 S.	S. 17 0 W.	S. 12 0 W.	5 0 W.	10 15 W.	5 15 E.	2 0 E.	..	2 0 E.	10 0 E.	0 15 E.	9 4
3	10 35	23 28	..	5 S.	S. 11 0 W.	S. 7 30 W.	3 30 W.	10 30 W.	7 0 E.	3 30 E.	0 30 W.	4 0 E.	6 30 E.	..	6 2
4	12 59	24 32	..	5 S.	S. 17 0 W.	S. 13 30 W.	3 30 W.	9 30 W.	6 0 E.	2 30 E.	..	2 30 E.	5 30 E.	0 30 E.	5
5	14 47	25 0	..	3 S.	S. 22 0 W.	S. 18 0 W.	4 0 W.	8 30 W.	4 30 E.	2 0 E.	0 15 E.	1 45 E.	5 0 E.	0 45 E.	4 1
6	16 50	25 34	..	1 S.	S.	S. 12 30 E.	12 30 W.	16 0 W.	3 30 E.	0 30 E.	3 0 W.	3 30 E.	2 30 E.	2 0 W.	4 4
9	20 25	26 6	..	6 S.	S. 45 0 W.	S. 47 0 W.	2 0 E.	0 30 W.	2 30 E.	6 0 E.	3 30 E.	2 30 E.	9 0 E.	3 45 E.	5 1
10	21 37	28 10	..	..	S. 73 0 W.	S. 72 30 W.	0 30 W.	5 0 E.	5 30 E.	8 30 W.	4 0 E.	12 30 W.	2 30 E.	4 30 E.	2
11	22 29	29 20	..	2 P.	S. 28 0 E.	S. 43 30 E.	15 30 W.	21 0 W.	5 30 E.	0 30 E.	6 30 W.	7 0 E.	0 30 E.	3 30 W.	4
13	23 28	26 37	..	6 P.	S. 45 0 E.	S. 61 0 E.	16 0 W.	21 0 W.	5 0 E.	2 0 W.	7 45 W.	5 45 E.	2 0 W.	3 0 W.	1
14	23 37	25 17	..	..	S. 79 0 W.	S. 76 30 W.	2 30 W.	5 45 E.	8 15 W.	12 30 W.	4 15 E.	16 45 W.	1 30 E.	4 45 E.	3
	..	..	..	..	S. 22 0 E.	S. 38 30 E.	16 30 W.	20 30 W.	4 0 E.	2 30 W.	6 0 W.	3 30 E.	1 30 W.	3 30 W.	2
15	23 42	24 18	..	4 P.	S. 34 0 E.	S. 50 30 E.	16 30 W.	21 30 W.	5 0 E.	0 30 E.	7 0 W.	7 30 E.	1 30 W.	3 30 W.	3
17	25 1	21 37	..	3 S.	S. 62 0 W.	S. 64 30 W.	2 30 E.	3 30 E.	1 0 W.	3 30 W.	4 30 E.	8 0 E.	13 30 E.	4 30 E.	9
19	26 50	23 1	..	..	S. 11 0 E.	S. 25 30 E.	14 30 W.	18 30 W.	4 0 E.	2 30 E.	4 45 W.	7 15 E.	1 30 E.*	3 0 W.	4
21	30 41	20 25	..	..	S. 17 0 E.	S. 35 0 E.	18 0 W.	20 30 W.	2 30 E.	1 0 W.	6 0 W.	5 0 E.	1 0 W.	3 30 W.	4
22	32 47	18 11	..	2 P.	S. 17 0 E.	S. 36 0 E.	19 0 W.	20 30 W.	1 30 E.	..	6 0 W.	6 0 E.	0 0	3 30 W.	3
24	35 13	12 27	..	..	S. 25 0 E.	S. 45 0 E.	20 0 W.	21 0 W.	1 0 E.	1 0 W.	7 0 W.	6 0 E.	1 0 W.	3 30 W.	2
28	39 12	0 22	..	..	S. 34 0 E.	S. 54 0 E.	20 0 W.	21 30 W.	1 30 E.	2 0 E.	7 0 W.	9 0 E.	4 0 W.	3 0 W.	1
29	39 5	East. 2 40	..	..	S. 45 0 E.	S. 65 0 E.	21 0 W.	20 45 W.	0 15 W.	1 0 E.	7 45 W.	8 45 E.	8 0 W.	2 30 W.	5
30	39 11	5 18	..	..	S. 45 0 E.	S. 67 0 E.	22 0 W.	20 30 W.	1 30 W.	2 0 E.	7 45 W.	9 45 E.	7 0 W.	2 30 W.	4
Oct. 1	39 12	7 6	..	..	S. 45 0 E.	S. 66 0 E.	21 0 W.	20 30 W.	0 30 W.	1 0 E.	7 45 W.	8 45 E.	9 0 W.	2 30 W.	6
4	38 51	12 25	..	..	S. 45 0 W.	S. 44 45 W.	0 15 W.	1 0 W.	0 45 E.	11 15 W.	0 E.	14 15 W.	2 45 E.	3 30 E.	0
	..	..	..	..	S. 45 0 E.	S. 66 15 E.	21 30 W.	20 30 W.	1 0 W.	4 45 E.	7 45 W.	12 30 E.	3 15 W.	2 30 W.	0
5	39 49	15 29	..	4 S.	S. 22 0 W.	S. 17 30 W.	4 30 W.	8 30 W.	4 0 E.	1 45 E.	0 15 E.	1 30 E.	5 45 E.	0 45 E.	5
6	41 19	16 21	..	2 S.	S. 17 0 E.	S. 35 0 E.	18 0 W.	20 30 W.	2 30 E.	3 0 E.	5 45 W.	8 45 E.	2 0 W.	3 30 W.	1
8	42 12	20 40	..	..	S. 39 30 E.	S. 61 30 E.	22 0 W.	20 45 W.	1 15 W.	5 0 E.	7 45 W.	12 45 E.	3 0 W.	3 0 W.	
12	41 25	33 18	..	..	S. 39 30 E.	S. 59 30 E.	20 0 W.	21 0 W.	1 0 E.	12 0 E.	7 45 W.	19 45 E.	1 0 E.	3 0 W.	4
16	40 38	46 54	..	..	S. 62 0 E.	S. 83 0 E.	21 0 W.	17 0 W.	4 0 W.	8 0 E.	7 30 W.	15 30 E.	1 0 W.	1 15 W.	0
17	39 41	50 36	..	..	S. 67 30 E.	S. 86 30 E.	19 0 W.	16 0 W.	3 0 W.	11 0 E.	7 30 W.	18 30 E.	2 0 W.	1 0 W.	1
18	38 25	53 30	..	1 P.	S. 79 0 E.	N. 84 30 E.	16 30 W.	11 30 W.	5 0 W.	7 30 E.	6 0 W.	13 30 E.	3 30 W.	0 15 W.	3
19	37 34	55 46	..	..	S. 79 0 E.	N. 86 30 E.	14 30 W.	13 0 W.	1 30 W.	7 30 E.	6 15 W.	13 45 E.	4 30 W.	0 15 W.	4
20	36 34	57 50	..	..	S. 87 0 E.	N. 82 0 E.	11 0 W.	10 0 W.	1 0 W.	10 0 E.	6 0 W.	16 0 E.	4 0 W.	..	4
22	35 49	62 41	..	7 S.	S. 67 30 E.	S. 83 15 E.	15 45 W.	17 15 W.	1 30 E.	4 15 E.	6 0 W.	10 15 E.	6 45 W.	..	6
24	34 32	69 23	..	6 S.	N. 84 30 E.	N. 75 30 E.	9 0 W.	6 0 W.	3 0 W.	7 0 E.	5 30 W.	12 30 E.	2 0 W.	0 45 E.	2
26	32 6	73 46	..	..	N. 34 0 E.	N. 40 0 E.	6 0 E.	14 0 E.	8 0 W.	3 0 E.	2 30 W.	15 30 E.	2 0 W.	1 15 E.	3
28	28 46	75 16	..	4 P.	N. 34 0 E.	N. 46 0 E.	12 0 E.	11 30 E.	0 30 E.	10 0 E.	2 30 W.	12 30 E.	4 0 E.	1 30 E.	2
29	26 37	76 12	..	5 P.	N. 17 0 E.	N. 27 45 E.	10 45 E.	16 30 E.	5 45 W.	5 45 E.	2 0 W.	7 45 E.	0 45 E.	1 0 E.	0
30	24 21	76 40	..	5 P.	N. 5 30 E.	N. 16 30 E.	11 0 E.	18 30 E.	7 30 W.	4 0 E.	1 45 W.	5 45 E.	..	0 45 E.	0
Nov. 1	19 46	77 1	..	6 P.	N.	N. 9 0 E.	9 0 E.	17 45 E.	8 45 W.	3 0 E.	1 15 W.	4 15 E.	..	0 15 E.	0
3	14 46	78 0	..	6 P.	N. 17 0 E.	N. 25 0 E.	8 0 E.	16 30 E.	8 30 W.	2 0 E.	2 0 W.	4 0 E.	1 0 W.	0 45 E.	1
4	11 59	78 30	..	4 P.	N. 17 0 E.	N. 25 15 E.	8 15 E.	16 30 E.	8 30 W.	5 15 E.	2 0 W.	7 15 E.	1 15 E.	0 45 E.	0
5	9 19	79 21	..	4 P.	N. 17 0 E.	N. 24 0 E.	7 0 E.	16 30 E.	9 30 W.	4 0 E.	2 0 W.	6 0 E.	1 0 E.	0 45 E.	0
10	3 24	82 10	..	1 P.	N. 17 0 E.	N. 23 0 E.	6 0 E.	16 30 E.	10 30 W.	3 0 E.	2 0 W.	5 0 E.	2 0 W.	0 45 E.	2
11	2 48	82 54	..	..	N. 17 0 E.	N. 23 0 E.	6 0 E.	17 0 E.	11 0 W.	3 0 E.	2 0 W.	5 0 E.	2 0 W.	0 45 E.	2
14	0 33	85 24	..	..	N. 5 30 W.	N. 1 0 E.	6 30 E.	17 30 E.	11 0 W.	1 30 E.	0 45 W.	2 45 E.	2 30 W.	..	2
20	North. 6 53	87 14	..	2 P.	N. 50 30 E.	N. 53 30 E.	3 0 E.	8 30 E.	5 30 W.	6 0 E.	3 0 W.	9 0 E.	2 0 E.	1 45 E.	0
21	7 46	88 32	..	1 P.	N. 56 0 E.	N. 58 30 E.	2 30 E.	6 0 E.	3 30 W.	3 30 E.	3 0 W.	6 30 E.	0 30 W.	1 45 E.	2

* A new card put in this compass to-day.

"Aphrodita," Captain Hugh Stewart, Liverpool to Calcutta—*continued.*

Lat.	Long.	Dip.	Heel. P. Port. S. Starboard.	Admiralty Compass. Ship's Head. By Compass.	Admiralty Compass. Ship's Head. Correct Magnetic.	Admiralty Compass. Observed Deviation.	Admiralty Compass. Deviation at Liverpool.	Admiralty Compass. Difference.	Compass over Companion. Observed Deviation.	Compass over Companion. Deviation at Liverpool.	Compass over Companion. Difference.	Compass under Companion. Observed Deviation.	Compass under Companion. Deviation at Liverpool.	Compass under Companion. Difference.
orth.	East.													
5	88 53	..	..	N. 39 30 E.	N. 43 0 E.	3 30 E.	13 0 E.	9 30 W.	1 30 E.	2 30 W.	4 0 E.	0 30 E.	1 30 E.	1 0 W.
11	87 55	..	3 P.	N. 5 30 W.	N. 1 15 E.	6 45 E.	17 30 E.	10 45 W.	2 45 E.	0 45 W.	3 30 E.	0 15 W.	..	0 15 W.
44	87 44	..	2 S.	S. 67 30 E.	S. 77 45 E.	10 15 W.	18 45 W.	8 30 E.	0 15 W.	7 45 W.	6 30 E.	0 15 W.	2 0 W.	1 45 E.
50	88 32	..	3 P.	W.	W. 5 0 N.	5 0 E.	8 30 E.	3 30 W.	1 0 E.	4 0 E.	3 0 W.	1 0 W.	4 0 E.	5 0 W.
8	88 9	..	..	N.	N. 8 0 E.	8 0 E.	17 30 E.	9 30 W.	2 0 W.	1 0 W.	1 0 W.	2 0 W.	0 15 E.	2 15 W.

CALCUTTA TO LIVERPOOL. First Voyage.

24	88 32	..	7 P.	S. 8 30 E.	S. 14 30 E.	6 0 W.	16 30 W.	10 30 E.	0 30 W.	3 15 W.	2 45 E.	0 30 W.	2 0 W.	1 30 E.
7	89 48	..	5 P.	S. 17 0 E.	S. 23 0 E.	6 0 W.	18 30 W.	12 30 E.	4 0 E.	4 20 W.	8 20 E.	4 0 E.	2 50 W.	6 50 E.
52	89 51	..	7 S.	S.	S. 3 0 E.	3 0 W.	13 40 W.	10 40 E.	5 0 E.	1 45 W.	6 45 E.	5 0 E.	1 0 W.	6 0 E.
56	89 52	..	3 S.	S. 3 0 E.	S. 4 45 E.	1 45 W.	14 0 W.	12 15 E.	5 15 E.	1 45 W.	7 0 E.	5 15 E.	1 0 W.	6 15 E.
39	89 43	..	4 S.	S. 3 0 E.	S. 4 40 E.	1 40 W.	14 0 W.	12 20 E.	5 20 E.	1 45 W.	7 5 E.	5 20 E.	1 0 W.	6 20 E.
41	89 37	..	10 S.	S. 3 0 E.	S. 4 30 E.	1 30 W.	14 0 W.	12 30 E.	4 30 E.	1 45 W.	6 15 E.	4 30 E.	1 0 W.	5 30 E.
1	89 37	..	2 S.	S. 3 0 W.	S. 1 30 W.	1 30 W.	12 45 W.	11 15 E.	4 30 E.	1 0 W.	5 30 E.	5 30 E.	0 40 W.	6 10 E
56	89 18	..	1 S.	S. 8 30 W.	S. 8 15 W.	0 15 W.	11 0 W.	10 45 E.	4 45 E.	0 30 W.	5 15 E.	5 45 E.	0 0	5 45 E.
29	88 23	..	3 S.	S. 8 30 W.	S. 6 30 W.	2 0 W.	11 40 W.	9 40 E.	3 0 E.	0 30 W.	3 30 E.	3 0 E.	0 10 W.	3 10 E.
4	87 21	..	..	S. 17 0 E.	S. 21 45 E.	4 45 W.	18 15 W.	13 30 E.	5 15 E.	4 10 W.	9 25 E.	5 15 E.	2 40 W.	7 55 E.
uth.														
41	89 5	..	16 P.	S. 11 15 E.	S. 13 35 E.	2 20 W.	16 0 W.	13 40 E.	7 40 E.	3 10 W.	10 50 E.	7 40 E.	2 0 W.	9 40 E.
54	89 4	..	10 P.	S. 22 30 W.	S. 21 30 W.	1 0 W.	7 30 W.	6 30 E.	4 0 E.	0 15 E.	3 45 E.	4 0 E.	1 15 E.	2 45 E.
36	88 53	..	10 P.	S.	S. 1 20 E.	1 20 W.	13 20 W.	12 0 E.	6 20 E.	1 30 W.	7 50 E.	6 20 E.	1 0 W.	7 20 E.
15	88 57	..	8 P.	S. 22 30 W.	S. 22 30 W.	..	7 10 W.	7 10 E.	4 0 E.	0 30 E.	3 30 E.	4 0 E.	1 15 E.	2 45 E.
2	87 30	..	6 P.	S. 22 30 W.	S. 25 30 W.	3 0 E.	6 20 W.	9 20 E.	8 0 E.	0 45 E.	7 15 E.	9 0 E.	1 40 E.	7 20 E.
58	86 20	..	8 S.	S. 45 0 W.	S. 42 30 W.	2 30 W.	1 30 W.	1 0 W.	2 30 W.	2 30 E.	5 0 W.	2 30 W.	3 15 E.	5 45 E.
30	84 16	..	8 S.	S. 56 15 W.	S. 62 0 W.	5 45 E.	3 0 E.	2 45 E.	5 15 W.	4 0 E.	9 15 W.	0 45 E.	4 30 E.	3 45 E.
13	81 0	..	8 S.	S. 61 45 W.	S. 67 30 W.	5 45 E.	4 0 E.	1 45 E.	6 15 W.	4 30 E.	10 45 W.	0 15 W.	4 50 E.	5 5 W.
37	78 10	..	8 S.	S. 61 45 W.	S. 65 30 W.	3 45 E.	3 45 E.	0 0	9 15 W.	4 15 E.	13 30 W.	3 45 E.	4 45 E.	1 0 W.
15	71 2	..	10 S.	S. 61 45 W.	S. 67 15 W.	5 30 E.	4 0 E.	1 30 E.	12 30 W.	4 20 E.	16 50 W.	1 30 W.	4 50 E.	6 20 W.
13	65 53	..	11 S.	S. 61 45 W.	S. 66 45 W.	5 0 E.	3 50 E.	1 10 E.	11 0 W.	4 20 E.	15 20 W.	5 0 E.	4 50 E.	0 10 E
14	63 34	..	10 S.	S. 64 45 W.	S. 71 5 W.	6 20 E.	4 45 E.	0 35 E.	9 40 W.	4 15 E.	13 55 W.	6 20 E.	4 50 E.	6 30 E.
38	60 56	..	8 S.	S. 73 0 W.	S. 79 0 W.	6 0 E.	6 15 E.	0 15 W.	11 0 W.	4 20 E.	15 20 W.	6 0 E.	4 45 E.	1 15 E.
54	58 11	..	2 S.	S. 67 30 W.	S. 75 0 W.	7 30 E.	5 35 E.	1 55 E.	9 30 W.	4 20 E.	13 50 W.	5 30 E.	4 45 E.	0 45 E.
0	56 8	..	..	S. 78 45 W.	S. 85 30 W.	6 45 E.	7 30 E.	0 45 W.	11 15 W.	4 0 E.	15 15 W.	1 15 W.	4 40 E.	5 55 W.
27	54 45	..	2 S.	S. 78 45 W.	S. 84 30 W.	5 45 E.	7 10 E.	1 25 W.	15 15 W.	4 0 E.	19 15 W.	1 15 W.	4 45 E.	6 0 W.
8	49 27	..	2 S.	N. 78 45 W.	N. 71 15 W.	7 30 E.	10 15 E.	2 45 W.	15 30 W.	2 45 E.	18 15 W.	1 30 W.	3 0 E.	4 30 W.
30	46 33	..	2 S.	N. 78 45 W.	N. 72 25 W.	6 20 E.	10 15 E.	3 55 W.	14 40 W.	2 45 E.	17 25 W.	2 40 W.	3 0 E.	5 40 W.
36	45 35	..	..	West	N. 83 0 W.	7 0 E.	9 0 E.	2 0 W.	15 0 W.	3 45 E.	18 45 W.	2 0 W.	3 50 E.	5 50 W.
11	43 41	..	14 S.	West	N. 83 30 W.	6 30 E	9 0 E.	2 30 W.	16 30 W.	3 45 E.	20 15 W.	1 30 W.	3 50 E.	5 20 W.
35	34 0	..	2 S.	N. 87 45 W.	N. 70 15 W.	8 30 E.	10 15 E.	1 45 W.	10 30 W.	2 40 E.	13 10 W.	1 30 E.	2 50 E.	1 20 W.
56	33 13	..	14 S.	N. 67 30 W.	N. 59 50 W.	7 40 E.	12 30 E.	4 50 W.	11 20 W.	1 45 E.	13 5 W.	0 20 W.	1 45 E.	2 5 W.
36	31 21	..	15 S.	S. 73 0 W.	S. 80 15 W.	7 15 E.	6 30 E.	0 45 E.	14 45 W.	4 15 E.	19 0 W.	0 45 W.	4 40 E.	5 25 W.
50	25 32	..	14 P.	S. 45 0 W.	S. 54 45 W.	9 45 E.	1 0 E.	8 45 E.	2 45 E.	4 0 E.	1 15 W.	16 45 E.	4 0 E.	12 45 E.
36	24 22	..	12 S.	N. 17 0 E.	N. 21 45 E.	4 45 E.	17 15 E.	12 30 W.	8 15 W.	2 0 W.	6 15 W.	12 15 W.	0 45 E.	13 0 W.
27	21 10	..	..	N. 78 45 W.	N. 73 45 W.	5 0 E.	10 0 E.	5 0 W.	17 0 W.	2 45 E.	17 45 W.	6 0 W.	3 0 E.	9 0 W.
12	20 2	..	2 P.	N. 56 15 W.	N. 51 25 W.	4 50 E.	12 30 E.	7 40 W.	15 10 W.	1 30 E.	16 40 W.	7 10 W.	1 15 E.	8 25 W.
19	19 6	..	5 S.	N. 33 45 W.	N. 28 0 W.	5 45 E.	15 0 E.	9 15 W.	12 15 W.	0 30 E.	12 45 W.	7 15 W.	..	7 15 W.
40	16 42	..	4 S.	N. 22 30 W.	N. 19 15 W.	3 15 E.	16 0 E.	12 45 W.	10 45 W.	..	10 45 W.	12 45 W.	0 15 W.	13 0 W.
25	8 46	..	..	N. 22 30 W.	N. 19 0 W.	3 30 E.	16 0 E.	12 30 W.	10 30 W.	..	10 30 W.	10 30 W.	0 15 W.	10 15 W.
50	6 34	..	..	N. 22 30 W.	N. 19 30 W.	3 0 E.	16 0 E.	13 0 W.	10 0 W.	..	10 0 W.	10 0 W.	0 15 W.	9 45 W.
50	1 46	..	..	N. 22 30 W.	N. 19 15 W.	3 15 E.	16 0 E.	12 48 W.	9 45 W.	..	9 45 W.	9 45 W.	0 15 W.	9 30 W.
3	0 43	..	..	N. 11 15 W.	N. 8 15 W.	3 0 E.	17 0 E.	14 0 W.	7 0 W.	0 20 W.	7 20 W.	7 0 W.	0 20 W.	6 40 W.
22	West. 0 57	..	4 S.	N. 33 45 W.	N. 29 15 W.	4 30 E.	14 45 E.	10 15 W.	10 30 W.	0 30 E.	11 0 W.	8 30 W.	..	8 30 W.
4	8 38	..	..	N. 28 0 W.	N. 27 0 W.	1 0 E.	15 0 E.	14 0 W.	9 0 W.	0 30 E.	9 30 W.	9 0 W.	0 10 W.	8 50 W.

"Aphrodita," Captain Hugh Stewart, Calcutta to Liverpool—*continued.*

Date.	Lat.	Long.	Dip.	Heel. P. Port. S. Starboard.	Admiralty Compass. Ship's Head. By Compass.	Admiralty Compass. Ship's Head. Correct Magnetic.	Admiralty Compass. Observed Deviation.	Admiralty Compass. Deviation at Liverpool.	Admiralty Compass. Difference.	Compass over Companion. Observed Deviation.	Compass over Companion. Deviation at Liverpool.	Compass over Companion. Difference.	Compass under Companion. Observed Deviation.	Compass under Companion. Deviation at Liverpool.	Compass under Companion. Difference.
1859 May	South. ° ′	West. ° ′			° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
10	11 35	9 57	..	..	N. 17 0 W.	N. 15 30 W.	1 30 E.	16 0 E.	14 30 W.	5 30 W.	..	5 30 W.	5 30 W.	0 15 W.	5 15 W.
12	8 24	12 38	..	..	N. 22 30 W.	N. 20 40 W.	1 40 E.	15 45 E.	14 15 W.	7 20 W.	0 10 E.	7 30 W.	7 20 W.	0 15 W.	7 5 W.
15	2 58	18 1	..	..	N. 17 0 W.	N. 16 15 W.	0 45 E.	16 10 E.	15 25 W.	6 15 W.	..	6 15 W.	6 15 W.	0 15 W.	6 0 W.
22	North. 3 49	22 47	..	5 P.	N. 17 0 W.	N. 15 30 W.	1 30 E.	16 0 E.	14 30 W.	1 30 W.	..	1 30 W.	1 30 W.	0 15 W.	1 15 W.
25	5 9	23 10	..	..	N. 56 15 W.	N. 57 0 W.	0 45 W.	12 0 E.	12 45 W.	7 45 W.	1 45 E.	9 30 W.	7 45 W.	1 45 E.	9 30 W.
29	7 40	22 27	..	2 S.	N. 11 15 E.	N. 11 45 E.	0 30 E.	18 0 E.	17 30 W.	7 30 W.	1 30 W.	6 0 W.	1 30 W.	0 40 E.	2 10 W.
June 1	8 52	22 53	..	15 P.	N. 22 30 W.	N. 20 30 W.	2 0 E.	15 45 E.	13 45 W.	2 0 W.	0 10 E.	2 10 W.	2 0 W.	0 15 W.	1 45
5	11 53	27 34	..	15 P.	N. 33 45 W.	N. 29 15 W.	4 30 E.	14 45 E.	10 15 W.	2 30 E.	0 30 E.	2 0 E.	5 30 E.	..	5 30
7	14 13	29 32	..	18 P.	N. 11 0 W.	N. 4 5 W.	7 10 E.	17 0 E.	9 50 W.	10 10 E.	0 30 W.	10 40 E.	9 10 E.	0 10 W.	9 20
8	15 30	30 39	..	18 P.	N. 17 0 W.	N. 10 0 W.	7 0 E.	16 45 E.	9 45 W.	9 0 E.	0 15 W.	9 15 E.	11 0 E.	0 15 W.	11 15
10	18 17	32 38	..	18 P.	N. 11 15 W.	N. 1 45 W.	9 30 E.	17 25 E.	7 55 W.	10 30 E.	0 30 W.	12 0 E.	12 30 E.	0 20 W.	12 50
11	19 44	33 20	..	16 P.	N. 11 15 W.	N. 1 55 W.	9 20 E.	17 25 E.	8 5 W.	8 20 E.	0 30 W.	8 50 E.	8 20 E.	0 20 W.	8 40
12	21 12	34 8	..	14 P.	N. 22 30 W.	N. 16 0 W.	6 30 E.	16 20 E.	9 50 W.	9 30 E.	..	9 30 E.	10 30 E.	0 30 W.	11 0
15	25 50	35 56	..	12 P.	N. 11 15 W.	N. 0 15 E.	11 30 E.	17 25 E.	5 55 W.	11 30 E.	0 30 W.	12 0 E.	13 30 E.	..	13 30
16	27 11	36 34	..	14 P.	N. 11 15 W.	N. 4 45 E.	16 0 E.	17 40 E.	1 40 W.	15 0 E.	1 0 W.	16 0 E.	14 0 E.	0 20 E.	13 40
18	29 23	37 20	..	..	N. 11 15 E.	N. 20 0 E.	8 45 E.	18 0 E.	9 15 W.	0 15 W.	2 0 W.	1 45 E.	3 15 W.	0 50 E.	4 5
19	30 29	37 55	..	12 P.	N. 33 34 E.	N. 45 15 E.	11 30 E.	12 35 E.	1 5 W.	11 30 E.	2 40 W.	14 10 E.	16 30 E.	1 15 E.	15 15
21	33 49	37 45	..	14 P.	N. 3 0 W.	N. 15 15 E.	18 15 E.	18 0 E.	0 15 E.	18 15 E.	1 50 W.	20 5 E.	20 15 E.	0 45 E.	19 30
23	35 27	38 22	..	10 P.	N. 33 45 W.	N. 20 0 W.	13 45 E.	16 10 E.	2 25 W.	10 45 E.	..	10 45 E.	13 45 E.	0 20 W.	14
25	37 8	36 20	..	8 S.	N. 61 45 E.	N. 61 30 E.	0 15 W.	5 20 E.	5 35 W.	1 15 W.	4 0 W.	2 45 E.	2 45 E.	1 40 E.	1
27	38 10	35 41	..	7 P.	N. 73 0 E.	N. 74 15 E.	1 15 E.	4 30 W.	5 45 E.	6 15 E.	5 15 W.	11 30 E.	6 15 E.	0 50 E.	5
28	39 14	34 2	..	14 S.	N. 73 0 E.	N. 65 30 E.	7 30 W.	3 0 E.	10 30 W.	6 30 W.	4 20 W.	2 10 W.	1 30 E.	1 30 E.	0
30	40 33	30 24	..	15 S.	N. 78 45 E.	N. 73 15 E.	5 30 W.	3 15 W.	2 15 W.	3 30 W.	5 15 W.	1 45 E.	2 30 E.	0 50 E.	1
July 2	41 39	27 28	..	15 S.	N. 78 45 E.	N. 72 15 E.	6 30 W.	3 0 W.	3 30 W.	6 30 W.	5 0 W.	1 30 W.	1 30 W.	0 50 E.	2
3	42 9	26 19	..	..	N. 50 30 E.	N. 51 30 E.	1 0 E.	9 45 E.	8 45 W.	2 0 W.	2 45 W.	0 45 E.	..	1 30 E.	1
4	43 10	26 28	..	17 P.	N. 3 0 W.	N. 19 30 E.	22 30 E.	18 0 E.	4 30 E.	25 30 E.	2 0 W.	27 30 E.	14 30 E.	0 45 E.	13
6	44 14	28 30	..	15 P.	N. 25 30 W.	N. 3 0 W.	22 30 E.	17 35 E.	4 55 E.	20 20 E.	0 30 W.	21 0 E.	24 30 E.	0 20 W.	24
7	44 27	28 54	..	2 S.	S. 45 0 E.	S. 57 30 E.	12 30 W.	2 10 E.	14 40 W.	3 30 E.	4 0 E.	0 30 W.	3 30 W.	4 30 E.	8
10	45 31	24 16	..	8 S.	S. 78 45 E.	N. 89 45 E.	11 30 W.	15 0 W.	3 30 E.	6 30 W.	7 0 W.	0 30 E.	10 30 W.	0 20 W.	10
13	46 23	19 17	..	17 S.	S. 39 15 E.	S. 45 15 E.	6 0 W.	20 30 W.	14 30 E.	11 0 E.	6 45 W.	17 45 E.	9 0 E.	3 30 W.	12
15	46 6	18 56	..	18 P.	N. 11 15 E.	N. 35 30 E.	24 15 E.	15 35 E.	8 40 E.	23 15 E.	2 10 W.	25 25 E.	25 15 E.	1 20 E.	23
18	47 22	17 20	..	13 S.	N. 84 15 E.	N. 77 35 E.	6 40 W.	5 30 W.	1 10 W.	1 40 W.	5 40 W.	4 0 E.	2 20 E.	0 35 E.	1
22	48 51	12 46	..	20 S.	N. 70 30 E.	N. 65 30 E.	5 0 W.	3 30 E.	8 30 W.	3 0 W.	4 20 W.	1 20 E.	1 0 E.	1 40 E.	0
25	50 31	9 35	..	5 S.	N. 67 30 E.	N. 68 30 E.	1 0 E.	0 0	1 0 E.	0 0	4 45 W.	4 45 E.	5 0 E.	1 15 E.	3
26	51 22	8 29	..	..	S. 78 45 E.	S. 87 15 E.	8 30 W.	16 0 W.	7 30 E.	1 30 E.	7 0 W.	8 30 E.	0 30 W.	0 45 W.	0

Note.—As the Admiralty standard compass belonging to this ship is a very perfect instrument, and Captain Stewart states that he has only recorded those observations which he considered good, it is believed that great dependence may be placed on the deviations given above. The log for this ship is remarkable for the extreme degrees of heel which it records, and as being the first placed before the Committee in which the angle of heeling has been regularly inserted.

On the outward voyage there is an evident reduction in the ship's magnetism, though not so great as appears before an allowance is made for the increase in the directive power of the earth. On the homeward voyage, after her head has been for some time to the westward, the attraction of the N. end of the needle to the starboard side nearly disappears altogether; thus, May 29, after she has been for some time with her head northerly, the deviation to starboard is only half a degree. When the ship arrived in Liverpool, and while in graving dock with head W.7° N. the attraction to the stern was 8°, or only half of what it was at first; but after being loaded with her head a little to the East of North, it again increased to nearly its original quantity.

In the southern hemisphere the deviation from heeling appears small, and indication is afforded of an attraction of the needle to the low side; but when she turns her head to the northward in the Atlantic Ocean, the de from heeling is towards the high side of the ship, and rapidly inc thus,

June 1	Head	N. 22 30 W.	Heel 15 to port	the deviation is	2 0
12	„	N. 22 30 W.	„ 14 „	„	6 30
23	„	N. 33 45 W.	„ 10 „	„	13 45
July 6	„	N. 25 30 W.	„ 15 „	„	22 30

Again, on the 27th and 28th June, although the ship is not in a posi show much effect from heeling, her head on both days being N. 73° E., be seen that a change from 7° heel to port to 14° heel to starboard m difference in the deviation of 8° 45′.

It should be noted that in this as in the preceding logs the compass given in the originals include variation as well as deviation. In the record the variation, as indicated by Mr. Evans's chart, has been c applied, so as to show only the deviation due to the ship's magnetism.

W. W. Rut

"SLIEVE DONARD," CAPTAIN THOMPSON.

LIVERPOOL TO ADEN. First Voyage.

Long.	Dip.	Steering Compass. Ship's Head.	Steering Compass. Total Error.	Steering Compass. Variation.	Steering Compass. Deviation.	Ship's Head, Correct Magnetic.	Gowland's Compass. Ship's Head.	Gowland's Compass. Deviation.	Tell-tale Compass. Ship's Head.	Tell-tale Compass. Deviation.	Mast Compass. Ship's Head.	Mast Compass. Deviation.	Remarks, Wind, &c.
° ′ West.	° ′ North.	° ′	° ′	° ′ West.	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	
13 46	..	S. 65 0 W.	..	23 35	..	..	S. 56 0 W.	..	S. 65 0 W.	..	S. 73 0 W.	..	Light and variable.
17 54	..	S. 65 0 W.	..	24 10	..	..	S. 53 0 W.	..	S. 62 0 W.	..	S. 73 0 W.	..	Wind, S.W.; fresh.
18 49	..	S. 76 0 W.	24 30 W.	23 50	0 40 W.	S. 75 20 W.	S. 70 0 W.	5 20 E.	S. 70 0 W.	5 20 E.	S. 83 0 W.	7 40 W.	S.S.E., strong.
19 56	..	N. 77 0 W.	23 0 W.	23 50	0 50 E.	N. 76 10 W.	N. 73 0 W.	3 10 W.	N. 79 0 W.	2 50 E.	N. 62 0 W.	14 10 W.	S., light.
23 12	..	N. 81 0 W.	..	24 10	..	..	S. 81 0 W.	..	S. 79 0 W.	..	N. 82 0 W.	..	S.W. gale.
23 0	..	S. 11 0 E.	21 30 W.	23 10	1 40 E.	S. 9 20 E.	S. 17 0 E.	7 40 E.	S. 11 15 E.	1 55 E.	South.	9 20 W.	S.S.W., do.; latter part W.N.W.
22 46	..	S. 17 0 E.?	20 30 W.	23 0	2 30 E.	..	S. 70 0 E.	..	S. 67 0 E.	..	S. 64 0 E.	..	Light and calm.
23 26	..	S. 28 0 W.	19 30 W.	22 35	3 5 E.	S. 31 5 W.	S. 25 0 W.	6 5 E.	S. 34 0 W.	2 55 W.	S. 45 0 W.	13 55 W.	Do., wind W.
24 9	..	S. 68 0 W.	19 30 W.	22 0	2 30 E.	S. 70 30 W.	S. 62 0 W.	8 30 E.	S. 65 0 W.	5 30 E.	S. 78 0 W.	7 30 W.	Do.
24 4	..	S. 62 0 W.	..	21 0	..	..	S. 47 0 W.	..	S. 53 0 W.	..	S. 67 0 W.	..	E.S.E., strong.
25 13	..	S. 53 0 W.	..	20 0	..	..	S. 39 0 W.	..	S. 51 0 W.	..	S. 62 0 W.	..	East, do.
26 29	..	S. 28 0 W.	19 0 W.	18 10	0 50 W.	S. 27 10 W.	S. 22 0 W.	5 10 E.	S. 25 0 W.	2 10 E.	S. 39 0 W.	11 50 W.	Do.
27 10	..	S. 45 0 W.	18 20 W.	17 0	1 20 W.	S. 43 40 W.	S. 37 0 W.	6 40 E.	S. 39 0 W.	4 40 E.	S. 51 0 W.	7 20 W.	Do.
27 30	..	S. 47 0 W.	15 0 W.	16 10	1 10 E.	S. 48 10 W.	S. 28 0 W.	20 10 E.	S. 36 15 W.	11 55 E.	S. 36 30 W.	11 40 E.	East, light.
27 47	..	S. 5 30 E.	13 52 W.	15 40	1 48 E.	S. 3 42 E.	S. 6 0 E.	2 18 E.	South.	3 42 W.	S. 47 0 W.?	..	N.E., light.
27 41	..	S. 9 0 W.	13 0 W.	15 20	2 20 E.	S. 11 20 W.	S. 6 0 W.	5 20 E.	S. 5 30 W.	5 50 E.	S. 13 0 W.	1 40 W.	Do.
27 24	..	S. 5 30 E.	12 42 W.	15 0	2 18 E.	S. 3 12 E.	S. 9 0 E.	5 48 E.	S. 5 30 E.	0 18 E.	S. 5 30 W.	8 42 W.	E.N.E., light.
27 10	34 0	S. 11 15 E.	12 0 W.	14 45	2 45 E.	S. 8 30 E.	S. 11 30 E.	3 0 E.	S. 9 0 E.	0 30 E.	S. 2 45 W.	11 15 W.	N., light.
26 40	30 0	S. 11 30 E.	10 56 W.	14 45	3 49 E.	S. 7 41 E.	S. 11 15 E.	3 34 E.	S. 5 30 E.	2 11 W.	S. 4 45 W.	12 26 W.	Do.
26 46	28 0	S. 14 0 W.	..	14 25	..	..	S. 5 30 W.	..	S. 11 15 W.	..	S. 14 0 W.	..	Light airs.
26 31	25 0	S. 22 0 W.	..	14 45	..	..	S. 17 0 W.	..	S. 14 0 W.	..	S. 25 0 W.	..	Do.
27 10	24 0	S. 42 0 W.	..	14 20	..	..	S. 37 0 W.	..	S. 39 0 W.	..	S. 47 0 W.	..	Calm.
28 0	22 0	S. 36 0 W.	16 0 W.	13 45	2 15 W.	S. 33 45 W.	S. 34 0 W.	0 15 W.	S. 39 0 W.	5 15 W.	S. 51 0 W.	17 15 W.	Light airs.
28 7	21 0	S. 56 0 W.	18 45 W.	13 35	5 10 W.	S. 50 50 W.	S. 39 0 W.	11 50 E.	S. 45 0 W.	5 50 E.	S. 51 0 W.	0 10 W.	S.E., light.
29 25	17 0	S. 33 30 W.	19 18 W.	12 15	7 3 W.	S. 26 27 W.	S. 22 0 W.	4 27 E.	S. 28 0 W.	1 33 W.	S. 33 30 W.	6 3 W.	S.S.E. to E., light.
30 15	16 0	S. 39 0 W.	19 35 W.	11 50	7 45 W.	S. 31 15 W.	S. 22 0 W.	9 15 E.	S. 31 0 W.	0 15 E.	S. 37 0 W.	5 45 W.	S.E., do.
31 10	15 0	West.	19 58 W.	11 15	8 43 W.	S. 81 17 W.	S. 78 0 W.	3 17 E.	S. 73 0 W.	8 17 E.	S. 84 0 W.	2 43 W.	Do.
32 36	10 0	S. 51 0 W.	20 0 W.	10 15	9 45 W.	S. 41 15 W.	S. 33 0 W.	8 15 E.	S. 39 0 W.	2 15 E.	S. 45 0 W.	3 45 W.	Do.
34 38	5 0	S. 39 0 W.	20 0 W.	8 14	11 20 W.	S. 27 40 W.	S. 22 0 W.	5 40 E.	S. 28 0 W.	0 20 W.	S. 31 0 W.	3 20 W.	S.S.E., strong.
36 23	0 0	S. 22 0 W.	14 0 W.	7 0	7 0 W.	S. 15 0 W.	S. 7 30 W.	7 30 E.	S. 14 0 W.	1 0 E.	S. 17 0 W.	2 0 W.	S. by E., do.
37 0	South. 1 0	S. 3 0 W.	4 30 W.	6 40	2 10 E.	S. 5 10 W.	S. 5 30 E.	10 40 E.	South.	5 10 E.	S. 5 30 W.	0 20 W.	S.S.E., do.; latter part variable.
37 0	2 30	S. 22 0 W.	15 30 W.	6 10	9 20 W.	S. 12 30 W.	S. 11 30 W.	1 0 E.	S. 11 30 W.	1 0 E.	S. 23 0 W.	15 30 W.	Light and variable.
36 10	3 0	N. 82 0 E.	15 55 W.? 15 55 E.	6 20	.. ?22 15 E.	N. 72 25 E. (S. 70 45 E).	S. 78 0 E.	.. (7 15 E.)	S. 78 0 E.	.. (7 15 E.)	S. 84 30 E.	.. (13 45 E.)	Do.
36 23	4 0	N. 79 0 E.	16 20 E.	6 30	22 50 E.	S. 78 10 E.	S. 79 0 E.	0 50 E.	S. 81 0 E.	2 50 E.	S. 78 0 E.	0 10 W.	Do.
36 22	5 30	N. 48 0 E. ?S. 48 0 E.	12 14 E.	6 15	18 29 E.	N. 66 29 E. ?S. 29 31 E.	S. 28 0 E.	.. (1 31 W.)	S. 28 0 E.	.. (1 31 W.)	S. 28 0 E.	.. (1 31 W.)	Do.
36 18	5 30	N. 45 0 E. ?S. 45 0 E.	14 8 E.	6 15	20 23 E.	N. 65 23 E. ?S. 24 37 E.	S. 28 0 E.	.. (3 23 E.)	S. 25 0 E.	.. (0 23 E.)	S. 25 0 E.	.. (0 23 E.)	Do., and calms.
37 40	8 0	S. 62 0 W.	28 0 W.	5 0	23 0 W.	S. 39 0 W.	S. 39 0 W.	0 0	S. 45 0 W.	6 0 W.	S. 45 0 W.	6 0 W.	Do., and latter part S. by E., fresh.
37 30	12 0	S. 31 0 E.	3 5 E.	4 40	7 45 E.	S. 23 15 E.	S. 28 0 E.	4 45 E.	S. 28 0 E.	4 45 E.	S. 25 0 E.	1 45 E.	E.S.E., fresh.
33 21	21 30	S. 52 0 E.	21 0 E.	5 50	26 50 E.	S. 25 10 E.	S. 33 30 E.	8 20 E.	S. 31 0 E.	5 50 E.	S. 31 0 E.	5 50 E.	Light and variable; latter part W.S.W., strong.
29 51	25 0	S. 61 0 E.	20 48 E.	7 40	28 28 E.	S. 32 32 E.	S. 42 0 E.	9 28 E.	S. 39 0 E.	6 28 E.	S. 53 30 E.	20 58 E.	W. strong.
26 57	27 0	S. 73 0 E.	20 0 E.	9 10	29 10 E.	S. 43 50 E.	S. 43 0 E.	4 10 E.	S. 43 0 E.	4 10 E.	S. 67 30 E.	23 40 E.	S.W., strong.
23 44	27 30	S. 72 0 E. ?N. 72 0 E.	18 24 E.	11 20	29 44 E.	S. 42 16 E. ?S. 78 16 E.	S. 78 0 E.	.. (0 16 W.)	S. 81 30 E.	.. (3 14 E.)	S. 74 0 E.?	..	S., do.
22 55	27 30	S. 73 0 E.	12 38 E.	11 30	24 8 E.	S. 48 52 E.	S. 51 0 E.	2 8 E.	S. 53 30 E.	4 38 E.	S. 78 0 E.?	29 8 E.	S.E., light airs and calm.
21 34	29 0	S. 78 0 E.	12 38 E.	12 20	24 58 E.	S. 53 2 E.	S. 53 0 E.	0 2 W.	S. 56 0 E.	2 58 E.	S. 42 0 E.	11 58 W.	N.E., light airs.
18 21	31 30	S. 70 30 E. ?N. 70 30 E.	20 23 E.	13 50	34 13 E.	S. 36 17 E. ?S. 75 17 E.	S. 70 0 E.	.. (5 17 W.)	S. 67 30 E.	.. (7 47 W.)	S. 67 0 E.	.. (8 17 W.)	N.W.; light and latter part strong.
14 38	34 0	S. 79 0 E. ?N. 79 0 E.	19 42 E.	16 10	33 52 E.	S. 45 8 E. ?S. 67 8 E.	S. 67 30 E.	.. (0 22 E.)	S. 64 30 E.	.. (2 38 W.)	S. 64 30 E.	.. (2 38 W.)	N.N.W., do.
10 12	37 30	S. 79 0 E. ?N. 79 0 E.	24 10 E.	18 20	42 30 E.	S. 33 30 E. ?S. 58 30 E.	S. 59 0 E.	.. (0 30 E.)	S. 59 0 E.	.. (0 30 E.)	S. 56 30 E.	.. (2 0 W.)	N.N.W., do.
5 5	41 0	S. 87 30 E. ?N. 87 30 E.	22 44 E.	21 0	43 44 E.	S. 43 46 E. ?S. 43 46 E.	S. 47 30 E.	.. (1 16 W.)	S. 51 0 E.	.. (2 14 E.)	S. 53 30 E.	.. (4 14 E.)	N.W., do.
1 59	43 0	S. 82 0 E. ?N. 82 0 E.	20 10 E.	22 10	42 20 E.	S. 39 40 E. ?S. 55 40 E.	S. 57 0 E.	.. (1 20 E.)	S. 52 30 E.	.. (3 10 W.)	S. 52 30 E.	.. (3 10 W.)	N.W., do.
East. 1 45	46 0	S. 88 30 E. ?N. 88 30 E.	18 21 E.	24 15	42 36 E.	S. 45 54 E. ?S. 43 54 E.	S. 47 0 E.	.. (1 24 W.)	S. 56 30 E.	.. (7 36 E.)	S. 47 30 E.	.. (1 24 W.)	Southerly, light, and passing squalls.

* Supposed clerical errors in the copy of the log which was presented to the Compass Committee.

"Slieve Donard," Captain Thompson, Liverpool to Aden—*continued.*

Date.	Lat.	Lonx.	Dip.	Steering Compass. Ship's Head.	Steering Compass. Total Error.	Steering Compass. Variation.	Steering Compass. Deviation.	Ship's Head, Correct Magnetic.	Gowland's Compass. Ship's Head.	Gowland's Compass. Deviation.	Tell-tale Compass. Ship's Head.	Tell-tale Compass. Deviation.	Mast Compass. Ship's Head.	Mast Compass. Deviation.	Remarks
1859	South.	East.	South.			West.									
May 26	37 58	6 3	49 0	S. 78 0 E.	15 55 E.	26 0	41 55 E.	S. 36 5 E.	S. 39 0 E.	2 55 E.	S. 51 0 E.	14 55 E.	S. 39 0 E.	2 55 E.	N.W., part
27	38 57	10 23	52 0	S. 73 0 E.	14 38 E.	27 20	41 58 E.	S. 31 2 E.	S. 42 0 E.	10 58 E.	S. 39 0 E.	7 58 E.	S. 28 30 E.	2 32 W.	S.S.W.,
28	39 40	15 6	54 0	N. 68 0 E.	23 52 E.	28 50	52 42 E.	S. 59 18 E.	S. 62 0 E.	2 42 E.	S. 73 30 E.	14 12 E.	S. 62 0 E.	2 42 E.	S.W., st
30	40 45	22 40	57 30	N. 37 0 E.	31 58 E.	30 50	62 48 E.	S. 80 12 E.	S. 87 0 E.	6 48 E.	N. 76 30 E.	22 18 E.	N. 82 0 E.	17 48 E.	S.W., su
June 1	41 9	26 10	58 30	N. 42 0 E.	32 16 E.	31 30	63 46 E.	S. 74 14 E.	S. 62 0 E.	12 14 W.	S. 70 30 E.	3 44 W.	Top and Card blown off this Compass.		Hard ga
2	40 48	31 8	60 0	N. 36 30 E.	36 16 E.	31 20	67 36 E.	S. 75 54 E.	S. 76 30 E.	0 36 E.	S. 73 0 E.	2 54 W.	..	..	N.W., fi
6	35 33	34 45	58 30	N. 31 30 E.	22 56 E.	29 0	51 56 E.	N. 83 36 E.	N. 87 15 E.	3 39 W.	N. 65 0 E.	18 36 E.	..	..	W. N. brez
7	34 2	36 34	58 0	N. 16 30 E.	6 32 E.	27 50	34 22 E.	N. 50 52 E.	N. 57 0 E.	5 8 W.	N. 39 0 E.	11 52 E.	..	..	N., mo
8	31 31	38 40	58 0	N. 33 0 E.	19 4 E.	25 50	44 54 E.	N. 77 54 E.	N. 82 0 E.	4 6 W.	N. 62 0 E.	15 54 E.	..	..	W., do.
9	29 25	41 0	57 30	N. 11 15 E.	5 22 E.	23 10	28 32 E.	N. 39 47 E.	N. 39 0 E.	0 47 E.	N. 22 30 E.	17 17 E.	..	..	S.W., s
10	28 11	41 12	57 0	N. 13 0 E.	3 2 E.	22 0	25 2 E.	N. 38 2 E.	N. 51 0 E.	12 58 W.	N. 28 0 E.	10 2 E.	..	..	S.W.; l
11	26 6	40 50	56 0	N. 4 0 W.	22 34 W.	20 10	2 24 W.	N. 1 36 W.	N. 11 15 E.	12 51 W.	N. 4 0 W.	2 24 E.	..	..	N.W.;
12	23 5	40 13	53 30	N. 3 0 E.	15 26 W.	19 20	3 54 E.	N. 6 54 E.	N. 22 30 E.	15 36 W.	N. 7 0 E.	0 6 W.	..	..	S., fres
13	20 43	40 35	51 30	N. 16 30 E.	3 6 W.	17 50	14 44 E.	N. 31 14 E.	N. 45 0 E.	13 46 W.	N. 28 0 E.	3 14 E.	..	..	S.E., li
14	17 48	41 28	49 0	N. 22 30 E.	3 36 W.	15 30	11 54 E.	N. 34 24 E.	N. 50 0 E.	15 36 W.	N. 42 0 E.	7 36 W.	..	..	Do.
15	14 44	43 5	46 0	N. 20 0 E.	3 4 W.	13 0	9 56 E.	N. 29 56 E.	N. 45 0 E.	15 4 W.	N. 34 0 E.	4 4 W.	..	..	S.W., f
16	12 7	43 42	43 0	N. 2 30 E.	12 42 W.	11 0	1 42 W.	N. 0 48 E.	N. 14 0 E.	13 12 W.	N. 5 30 E.	4 42 W.	..	..	S.E., d
17	9 5	44 24	39 0	N. 23 30 E.	5 16 W.	9 30	4 14 E.	N. 27 44 E.	N. 50 0 E.	22 16 W.	N. 39 0 E.	11 16 W.	..	..	Do.; squ
18	6 22	44 48	32 30	N. 22 0 E.	7 0 E.	8 0	15 0 E.	N. 35 0 E.	N. 48 0 E.	13 0 W.	N. 34 0 E.	1 0 E.	..	..	S.E., s
20	1 5	47 25	25 0	N. 22 30 E.	4 0 E.	5 30	9 30 E.	N. 32 0 E.	N. 43 0 E.	11 0 W.	N. 37 0 E.	5 0 W.	..	..	S.E., s
21	North. 0 34	48 42	23 0	N. 11 15 E.	4 6 E.	5 0	9 6 E.	N. 20 21 E.	N. 28 0 E.	7 39 W.	N. 20 30 E.	0 9 W.	..	..	S.E.
22	2 30	49 39	20 0	N. 9 0 E.	4 36 E.	4 30	9 6 E.	N. 18 6 E.	N. 22 30 E.	4 24 W.	N. 20 0 E.	1 54 W.	..	..	S.S.E.
23	4 20	51 25	15 0	N. 16 30 E.	7 56 E.	3 40	11 36 E.	N. 28 6 E.	N. 34 0 E.	5 54 W.	N. 25 0 E.	3 6 E.	..	..	Do.;
24	6 24	52 11	12 30	N. 11 15 W.	7 28 W.	3 38	3 58 W.	N. 15 13 W.	N. 5 30 W.	9 43 W.	N. 14 0 W.	1 13 W.	..	..	S.W.,
25	10 21	52 0	4 0	N. 11 15 W.	8 4 W.	3 0	5 4 W.	N. 16 19 W.	N. 5 45 W.	10 34 W.	N. 13 0 W.	3 19 W.	..	..	S.W.,
26	11 47	51 20	2 0	N. 26 0 W.	16 54 W.	3 0	13 54 W.	N. 39 54 W.	N. 26 0 W.	13 54 W.	N. 32 0 W.	7 54 W.	..	..	Do.
27	12 10	50 40	1 0	N. 52 0 W.	15 58 W.	3 10	12 48 W.	N. 64 48 W.	N. 65 0 W.	0 12 E.	N. 70 45 W.	5 57 E.	..	..	S.E. t
28	12 14	50 15	Faint airs and calms. Thermometer 104°. Compasses no use. Steering by the Land.												
July 1	11 47	48 23	2 0	N. 65 0 W.	17 24 W.	3 40	13 44 W.	N. 78 44 W.	N. 81 30 W.	2 46 E.	N. 84 0 W.	5 16 E.	..	..	Faint
2	12 27	46 53	1 0	N. 65 0 W.	17 20 W.	3 50	13 30 W.	N. 78 30 W.	N. 82 0 W.	3 30 E.	N. 84 0 W.	5 30 E.	..	..	Do.;
4	12 50	46 25	..	S. 43 0 E.	13 44 E.	4 0	17 44 E.	S. 25 16 E.	S. 30 0 E.	4 44 E.	S. 29 0 E.	3 44 E.	..	..	Vari w

ADEN TO BOMBAY. First Voyage.

Date.	Lat.	Lonx.	Dip.	Steering Compass. Ship's Head.	Steering Compass. Total Error.	Steering Compass. Variation.	Steering Compass. Deviation.	Ship's Head, Correct Magnetic.	Gowland's Compass. Ship's Head.	Gowland's Compass. Deviation.	Tell-tale Compass. Ship's Head.	Tell-tale Compass. Deviation.	Mast Compass. Ship's Head.	Mast Compass. Deviation.	Remarks
Aug. 28	12 20	45 14	North. ..	N. 85 0 E.	13 44 E.	4 15	17 59 E.	S. 77 1 E.	S. 72 30 E.	4 31 W.	S. 70 0 E.	7 1 W.	..	..	S.W.
29	12 40	47 49	..	N. 54 0 E.	14 18 E.	3 40	17 58 E.	N. 71 58 E.	N. 79 0 E.	7 2 W.	N. 70 0 E.	1 58 E.	..	..	Do.,
30	12 58	49 36	..	N. 22 0 E.	11 24 E.	3 20	14 44 E.	N. 36 44 E.	N. 45 0 E.	8 16 W.	N. 56 0 E.	19 16 W.	..	..	S.W.
31	13 46	51 25	1 0	N. 51 0 E.	19 56 E.	2 45	22 41 E.	N. 73 41 E.	N. 79 0 E.	5 19 W.	N. 73 0 E.	0 41 E.	..	..	D
Sept. 1	15 8	55 20	5 0	N. 62 0 E.	18 6 E.	2 0	20 6 E.	N. 82 6 E.	S. 87 30 E.	10 24 W.	N. 84 30 E.	2 24 W.	..	..	S.W.
3	16 22	62 37	7 30	N. 38 0 E.	25 0 E.	1 0	26 0 E.	N. 64 0 E.	N. 51 0 E.	13 0 E.	N. 54 0 E.	10 0 E.	.	..	S.W.
4	16 34	66 0	9 0	N. 34 0 E.	14 0 E.	0 40	14 40 E.	N. 48 40 E.	N. 56 0 E.	7 20 W.	N. 48 0 E.	0 40 E.	..	..	D
5	17 19	68 45	12 0	N. 39 0 E.	19 18 E.	0 15	19 33 E.	N. 58 33 E.	N. 59 0 E.	0 27 W.	N. 56 0 E.	2 33 E.	..	..	S.W.
6	18 8	71 6	15 0	N. 37 0 E.	18 20 E.	East. 0 15	18 5 E.	N. 55 5 E.	N. 59 0 E.	3 55 W.	N. 56 0 E.	0 55 W.	..	..	Do.

BOMBAY TO LIVERPOOL. First Voyage.

Date.	Lat.	Lonx.	Dip.	Mast Compass. Ship's Head.	Mast Compass. Total Error.	Mast Compass. Variation.	Mast Compass. Deviation.	Ship's Head, Correct Magnetic.	Gowland's Compass. Ship's Head.	Gowland's Compass. Deviation.	Tell-tale Compass. Ship's Head.	Tell-tale Compass. Deviation.	Steering Compass. Ship's Head.	Steering Compass. Deviation.	Remarks
Dec. 13	16 13	70 3	10 0	S. 65 0 W.	2 42 W.	..	2 42 W.	S. 62 18 W.	S. 59 0 W.	3 18 E.	S. 59 0 W.	3 18 E.	S. 80 0 W.	17 42 W.	Nor
14	15 32	68 51	9 30	S. 62 0 W.	2 56 W.	West. 0 20	2 36 W.	S. 59 24 W.	S. 58 0 W.	1 24 E.	S. 58 0 W.	1 24 E.	S. 84 0 W.	24 36 W.	N.N
15	15 6	67 34	8 0	S. 63 0 W.	2 24 W.	0 30	1 54 W.	S. 61 6 W.	S. 59 0 W.	2 6 E.	S. 59 0 W.	2 6 E.	S. 82 0 W.	20 54 W.	Do.
16	14 11	66 28	6 0	S. 64 30 W.	3 54 W.	0 40	3 14 W.	S. 61 16 W.	S. 61 45 W.	0 29 W.	S. 61 45 W.	0 29 W.	S. 78 0 W.	16 44 W.	N.N
17	13 1	64 34	3 0	S. 64 30 W.	3 34 W.	1 0	2 34 W.	S. 61 56 W.	S. 61 30 W.	0 26 E.	S. 61 30 W.	0 26 E.	S. 79 0 W.	17 4 W.	N.E
18	11 55	62 34	..	S. 69 0 W.	3 10 W.	1 15	1 55 W.	S. 67 5 W.	S. 67 30 W.	0 25 W.	S. 64 30 W.	2 34 E.	S. 87 30 W.	20 25 W.	E.N
19	11 2	60 0	South. 4 0	S. 70 30 W.	3 36 W.	1 40	1 56 W.	S. 68 34 W.	S. 69 30 W.	0 56 W.	S. 68 30 W.	0 4 E.	West.	21 26 W.	
20	10 4	58 9	5 0	S. 70 30 W.	4 38 W.	1 50	2 48 W.	S. 68 42 W.	S. 67 30 W.	0 12 E.	S. 64 30 W.	3 12 E.	S. 89 0 W.	21 18 W.	

"Slieve Donard," Captain Thompson, Bombay to Liverpool—*continued.*

ng.	Dip.	Mast Compass. Ship's Head.	Total Error.	Variation.	Deviation.	Ship's Head, Correct Magnetic.	Gowland's Compass. Ship's Head.	Deviation.	Tell-tale Compass. Ship's Head.	Deviation.	Steering Compass. Ship's Head.	Deviation.	Remarks, Wind, &c.
st.	South.	° ′	° ′	West. ° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	
7	6 0	S. 64 30 W.	3 25 W.	2 20	1 05 W.	S. 63 25 W.	S. 62 30 W.	0 55 E.	S. 63 0 W.	0 25 E.	S. 84 30 W.	21 5 W.	E.N.E.
35	8 30	S. 61 30 W.	3 54 W.	2 40	1 14 W.	S. 60 16 W.	S. 59 0 W.	1 16 E.	S. 59 30 W.	0 46 E.	S. 81 0 W.	20 44 W.	N.E.; latter part E.
55	10 0	S. 62 0 W.	3 30 W.	2 40	0 50 W.	S. 61 10 W.	S. 62 0 W.	0 50 W.	S. 59 0 W.	2 10 E.	S. 81 30 W.	20 20 W.	E.
48	13 0	S. 64 30 W.	7 2 W.	3 45	3 17 W.	S. 61 13 W.	S. 60 0 W.	1 13 E.	S. 59 0 W.	2 13 E.	S. 84 30 W.	23 17 W.	N.E.
35	16 0	S. 62 0 W.	6 58 W.	4 30	2 28 W.	S. 59 32 W.	S. 59 0 W.	0 32 E.	S. 59 30 W.	0 2 E.	S. 84 30 W.	24 58 W.	N.E.
54	23 0	S. 34 30 W.	8 20 W.	5 40	2 40 W.	S. 32 50 W.	S. 29 30 W.	3 20 E.	S. 31 30 W.	1 20 E.	S. 57 0 W.	24 10 W.	E.
42	26 0	S. 25 30 W.	6 48 W.	6 30	0 18 W.	S. 25 12 W.	S. 23 30 W.	1 42 E.	S. 25 0 W.	0 12 E.	S. 52 30 W.	26 18 W.	E.
5	29 0	S. 28 30 W.	10 26 W.	7 15	3 11 W.	S. 25 19 W.	S. 19 30 W.	5 49 E.	S. 25 30 W.	0 11 W.	S. 52 0 W.	26 41 W.	E.
6	32 0	S. 32 30 W.	10 10 W.	8 15	1 55 W.	S. 30 35 W.	S. 22 0 W.	8 35 E.	S. 25 30 W.	5 5 E.	S. 56 0 W.	25 25 W.	N.E.
11	35 0	S. 31 30 W.	10 14 W.	8 50	1 24 W.	S. 30 6 W.	S. 22 0 W.	8 6 E.	S. 25 30 W.	4 36 E.	S. 59 0 W.	28 54 W.	E.N.E.; latter part E.
32	37 30	S. 31 0 W.	13 22 W.	10 0	3 22 W.	S. 27 38 W.	S. 19 0 W.	8 34 E.	S. 23 30 W.	4 8 E.	S. 58 0 W.	30 22 W.	N.E.
5	41 0	S. 42 30 W.	14 44 W.	10 50	3 54 W.	S. 38 36 W.	S. 31 0 W.	7 36 E.	S. 39 30 W.	0 54 W.	S. 84 0 W.	45 24 W.	E.
7	Sun obscure.	Compasses sluggish.											Variable and squally.
30	46 30	S. 56 30 W.	16 28 W.	14 0	2 28 W.	S. 54 2 W.	S. 50 0 W.	4 2 E.	S. 53 38 W.	0 32 E.	N. 75 0 W.	50 58 W.	Do.
45	48 30	S. 56 0 W.	16 2 W.	15 50	0 12 W.	S. 55 48 W.	S. 37 0 W. ? S. 53 0 W.	? 18 48 E. ? 2 48 E.	S. 52 30 W.	3 18 E.	N. 68 30 W.	56 42 W.	W., squally.
14	50 0	S. 61 30 W.	16 38 W.	17 10	1 2 E.	S. 62 32 W.	S. 53 0 W.	9 32 E.	S. 59 30 W.	3 2 E.	N. 72 30 W.	44 58 W.	S.W., strong breeze latter part S.E.
17	51 30	S. 29 30 W.	21 20 W.	20 0	1 20 W.	S. 28 10 W.	S. 36 0 W.	7 50 W.	S. 29 30 W.	1 20 W.	N. 83 30 W.	68 20 W.	S.E., strong breeze.
30	53 0	S. 31 0 W.	27 30 W.	22 0	5 30 W.	S. 25 30 W.	S. 18 0 W.	7 30 E.	S. 38 0 W.	12 30 W.	N. 89 0 W.	65 30 W.	S.E., light.
14	54 0	S. 73 30 W.	26 24 W.	23 0	3 24 W.	S. 70 6 W.	S. 68 30 W.	1 36 E.	S. 70 30 W.	0 24 W.	N. 57 30 W.	52 24 W.	Do.
32	55 0	S. 54 30 W.	32 48 W.	25 15	6 33 W.	S. 47 57 W.	S. 60 30 W.	12 33 W.	S. 59 30 W.	11 33 W.	S. 64 0 W.	68 3 W.	S.S.W., light.
55	55 0	S. 73 0 W.	33 20 W.	26 30	6 50 W.	S. 66 10 W.	S. 70 0 W.	3 50 W.	S. 67 30 W.	1 20 W.	S. 56 30 W.	57 20 W.	S.E., do.
57	56 0	S. 57 0 W.	31 6 W.	27 30	3 36 W.	S. 53 24 W.	S. 48 30 W.	4 54 E.	S. 56 30 W.	3 6 W.	S. 59 30 W.	67 6 W.	S., light.
37	..	Mast compass unshipped.		..	..	..	..	..	S. 5 30 E.	..	Compasses going round from N.W. to S.E.		S.E., light.
9	57 0	N. 72 30 W.	33 24 W.	29 30	3 54 W.	N. 76 24 W.	N. 63 0 W.	13 24 W.	N. 75 30 W.	0 54 W.	N. 39 0 W.	37 24 W.	W.S.W., light.
41	57 0	N. 78 30 W.	33 0 W.	29 40	2 20 W.	N. 81 50 W.	N. 72 0 W.	9 50 W.	N. 85 0 W.	3 10 E.	N. 40 0 W.	41 50 W.	Do.
25	56 0	N. 62 0 W.	34 30 W.	30 0	4 30 W.	N. 66 30 W.	N. 49 0 W.	17 30 W.	N. 67 30 W.	1 0 E.	N. 36 30 W.	30 0 W.	S.E.; latter part S.W.
2 35	55 0	N. 56 30 W.	34 20 W.	30 0	4 20 W.	N. 60 50 W.	N. 43 30 W.	17 20 W.	N. 62 0 W.	1 10 E.	N. 23 0 W.	37 50 W.	S.W.; latter part S.E.
7 50	53 0	N. 34 0 W.	34 32 W.	29 30	5 2 W.	N. 39 2 W.	N. 23 30 W.	15 32 W.	N. 39 0 W.	0 2 W.	N. 22 30 W.	16 32 W.	S.E.; latter part westerly.
5 32	52 0	N. 30 30 W.	32 56 W.	29 15	3 41 W.	N. 34 11 W.	N. 19 30 W.	14 41 W.	N. 36 30 W.	2 19 E.	N. 19 30 W.	14 41 W.	Do.
2 24	50 0	N. 35 0 W.	33 34 W.	28 30	5 14 W.	N. 40 14 W.	N. 23 0 W.	17 14 W.	N. 42 30 W.	2 16 E.	N. 25 0 W.	15 14 W.	Westerly; fresh breeze.
0 36	47 30	N. 28 30 E.	24 32 W.	28 0	6 32 W.	N. 21 58 E.	N. 45 0 E.	23 2 W.	N. 34 0 E.	12 2 W.	N. 11 15 E.	10 43 E.	W., light.
9 28	45 0	N. 28 30 W.	26 52 W.	27 48	0 56 W.	N. 27 30 W.	N. 7 0 W.	20 34 W.	N. 28 0 W.	0 26 E.	N. 16 30 W.	11 4 W.	Variable, light.
7 49	43 0	N. 31 0 W.	27 52 W.	27 30	0 12 W.	N. 31 12 W.	N. 12 0 W.	19 12 W.	N. 31 0 W.	0 12 W.	N. 19 30 W.	11 42 W.	Do.
5 41	41 30	N. 11 30 W.	28 30 W.	27 0	1 30 W.	N. 13 0 W.	N. 9 30 E.	22 30 W.	N. 8 30 W.	4 30 W.	N. 7 0 W.	6 0 W.	S.S.E., light.
5 15	41 0	N. 17 0 W.	26 50 W.	27 0	0 10 E.	N. 16 50 W.	N. 3 30 E.	20 20 W.	N. 17 0 W.	0 10 E.	N. 11 30 W.	5 20 W.	S., light.
3 29	38 0	N. 31 30 W.	27 50 W.	26 30	1 20 W.	N. 32 50 W.	N. 12 0 W.	20 50 W.	N. 28 30 W.	4 20 W.	N. 12 30 W.	20 20 W.	Do.
1 58	35 0	N. 26 0 W.	27 42 W.	26 15	1 27 W.	N. 27 27 W.	N. 7 30 W.	19 57 W.	N. 23 30 W.	3 57 W.	N. 17 30 W.	9 57 W.	S.S.E.
0 28	32 30	N. 19 0 W.	28 54 W.	25 50	3 4 W.	N. 22 4 W.	N. 2 30 W.	19 34 W.	N. 18 0 W.	4 4 W.	N. 14 0 W.	8 4 W.	S.S.E.
West. 1 42	29 0	N. 17 30 W.	28 18 W.	25 10	3 8 W.	N. 20 38 W.	N. 1 0 E.	21 38 W.	N. 16 0 W.	4 38 W.	N. 11 15 W.	9 23 W.	S.S.E.
3 37	26 30	N. 19 30 W.	27 34 W.	24 30	3 4 W.	N. 22 34 W.	N. 0 30 W.	22 4 W.	N. 19 30 W.	3 4 W.	N. 13 30 W.	9 4 W.	Light breeze.
5 26	23 0	N. 23 0 W.	26 4 W.	24 0	2 4 W.	N. 25 4 W.	N. 3 30 W.	21 34 W.	N. 23 0 W.	2 4 W.	N. 14 0 W.	11 4 W.	E.S.E., fresh breeze. Steering compass sluggish.
7 48	20 0	N. 19 30 W.	26 32 W.	23 30	3 2 W.	N. 22 32 W.	N. 2 0 W.	20 30 W.	N. 17 0 W.	5 32 W.	N. 14 0 W.	8 32 W.	E.S.E., light.
10 15	13 0	N. 13 45 W.	22 26 W.	22 20	0 6 W.	N. 13 51 W.	N. 3 0 W.	10 51 W.	N. 11 15 W.	2 36 W.	N. 10 30 W.	3 21 W.	Do.
11 52	9 0	N. 25 30 W.	23 36 W.	21 50	1 46 W.	N. 27 16 W.	N. 10 0 W.	17 16 W.	N. 24 30 W.	2 46 W.	N. 19 0 W.	8 16 W.	Do.
14 22	4 0	N. 23 0 W.	25 46 W.	21 0	4 46 W.	N. 27 46 W.	N. 8 0 W.	19 46 W.	N. 25 30 W.	2 16 W.	N. 17 15 W.	10 30 W.	Moderate breeze.
15 37	2 0	N. 17 30 W.	19 42 W.	20 40	0 58 E.	N. 16 32 W.	North.	16 32 W.	N. 19 30 W.	2 58 W.	N. 11 15 W.	5 17 W.	Do.
17 32	North. 2 0	N. 17 0 W.	19 28 W.	19 40	0 12 E.	N. 16 48 W.	N. 2 0 E.	18 48 W.	N. 13 15 W.	3 33 W.	N. 11 15 W.	5 33 W.	Do.
19 2	6 0	N. 17 0 W.	19 2 W.	18 45	0 17 W.	N. 17 17 W.	North.	17 17 W.	N. 15 0 W.	2 17 W.	N. 11 15 W.	2 2 W.	Do.
19 57	9 0	N. 14 30 W.	18 6 W.	18 0	0 6 W.	N. 14 36 W.	N. 1 0 E.	15 36 W.	N. 11 15 W.	3 21 W.	N. 11 15 W.	3 21 W.	S.E., light.
21 3	12 30	N. 20 0 W.	18 24 W.	17 20	1 4 W.	N. 21 4 W.	N. 5 30 W.	15 34 W.	N. 18 30 W.	2 34 W.	N. 16 0 W.	5 4 W.	Do.
22 4	14 0	N. 22 30 W.	17 52 W.	16 50	1 2 W.	N. 23 32 W.	N. 6 15 W.	17 17 W.	N. 22 30 W.	1 2 W.	N. 17 0 W.	6 32 W.	Do.
22 57	17 0	N. 17 0 W.	17 40 W.	16 20	1 20 W.	N. 18 20 W.	N. 3 0 W.	15 20 W.	N. 15 0 W.	3 20 W.	N. 13 30 W.	4 56 W.	Do; compasses sluggish.
24 15	19 0	N. 17 30 W.	18 32 W.	15 45	2 47 W.	N. 20 17 W.	N. 2 30 W.	17 47 W.	N. 17 30 W.	2 47 W.	N. 14 0 W.	6 17 W.	Light airs and variable.
24 50	20 30	N. 17 0 W.	14 58 W.	15 30	0 32 E.	N. 16 28 W.	North.	16 28 W.	N. 12 0 W.	4 28 W.	N. 11 15 W.	5 13 W.	Do.

"Slieve Donard," Captain Thompson, Bombay to Liverpool—*continued.*

Date.	Lat.	Long.	Dip.	Mast Compass.				Ship's Head, Correct Magnetic.	Gowland's Compass.		Tell-tale Compass.		Steering Compass.		Remarks.
				Ship's Head.	Total Error.	Variation.	Deviation.		Ship's Head.	Deviation.	Ship's Head.	Deviation.	Ship's Head.	Deviation.	
1860 Feb.	North. ° ′	West. ° ′	North. ° ′	° ′	° ′	West. ° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	
18	0 13	25 9	24 0	N. 5 30 W.	5 30 W.	15 20	9 50 E.	N. 4 20 E.	N. 9 0 E.	4 40 W.	N. 2 0 W.	6 20 E.	N. 5 0 W.	9 20 E.	Faint airs
19	0 40	25 15	24 30	N. 25 30 W.	25 30 W.	15 20	10 10 W.	N. 26 40 W.	N. 11 0 W.	15 40 W.	N. 23 30 W.	3 10 W.	N. 19 30 W.	7 10 W.	Do.
21	0 40	25 46	24 30	N. 2 45 W.	15 57 W.	15 15	0 42 W.	N. 3 27 W.	N. 11 15 E.	14 42 W.	North.	3 27 W.	N. 4 0 W.	0 33 E.	Do., an
22	0 54	26 9	25 0	N. 11 15 W.	13 32 W.	15 0	1 28 E.	N. 9 47 W.	N. 4 30 E.	14 17 W.	N. 5 30 W.	5 17 W.	N. 17 0 W.	7 13 E.	S.E., light
23	1 58	26 46	27 0	N. 5 30 W.	13 38 W.	14 45	1 7 E.	N. 4 23 W.	N. 11 15 E.	15 38 W.	N. 3 0 W.	1 23 W.	N. 3 30 W.	0 53 W.	Do.; squa
25	4 20	29 4	32 0	N. 26 0 W.	13 50 W.	13 30	0 20 W.	N. 26 20 W.	N. 11 0 W.	15 20 W.	N. 25 30 W.	0 50 W.	N. 19 30 W.	6 50 W.	N.E. and
26	5 45	31 15	35 0	N. 14 0 W.	13 34 W.	12 20	1 14 W.	N. 15 14 W.	N. 1 0 E.	16 14 W.	N. 11 15 W.	3 59 W.	N. 30 0 W.	14 46 E.	Do.
27	7 46	32 40	37 30	N. 8 30 W.	13 4 W.	12 0	1 4 W.	N. 9 34 W.	N. 7 0 E.	16 34 W.	N. 5 45 W.	3 49 W.	N. 5 30 W.	4 4 W.	Moderate
29	11 53	34 53	44 0	N. 8 30 W.	0 0	11 25	11 25 E.	N. 2 55 E.	N. 7 0 E.	4 5 W.	N. 2 45 W.	5 40 E.	N. 7 0 W.	9 55 E.	Moderate
Mar. 1	14 7	36 30	46 30	N. 5 30 W.	7 50 W.	11 15	3 25 E.	N. 2 5 W.	N. 11 0 E.	13 5 W.	N. 2 45 E.	4 50 W.	N. 2 45 W.	0 40 E.	Do.
2	16 13	36 50	49 0	N. 5 45 W.	10 42 W.	11 20	0 38 E.	N. 5 7 W.	N. 9 0 E.	14 7 W.	N. 2 45 W.	2 22 W.	N. 2 45 W.	2 22 W.	Do.
3	17 42	38 6	52 0	N. 19 30 W.	13 42 W.	11 30	2 12 W.	N. 21 42 W.	N. 7 30 W.	14 12 W.	N. 19 30 W.	2 12 W.	N. 16 45 W.	4 57 W.	Moderate
4	19 16	39 56	53 0	N. 11 15 W.	9 36 W.	11 15	1 39 E.	N. 9 36 W.	N. 6 45 E.	16 21 W.	N. 5 45 W.	3 51 W.	N. 8 30 W.	1 6 W.	Do.
6	21 47	42 44	56 30	North.	5 40 W.	11 30	5 50 E.	N. 5 50 E.	N. 21 0 E.	15 10 W.	N. 5 45 E.	0 5 E.	N. 2 0 E.	3 50 E.	Do.
7	23 47	43 24	58 0	N. 8 30 E.	5 30 W.	12 0	6 30 E.	N. 15 0 E.	N. 28 0 E.	13 0 W.	N. 17 30 E.	2 30 E.	N. 8 0 E.	7 0 E.	Do.
8	25 28	43 16	60 0	N. 45 0 E.	6 4 W.	13 0	6 56 E.	N. 51 56 E.	N. 63 0 E.	11 4 W.	N. 53 30 E.	1 34 W.	N. 36 30 E.	15 26 E.	E.N.E., l
9	27 4	43 10	61 0	N. 16 30 E.	4 42 W.	13 48	8 58 E.	N. 25 25 E.	N. 40 0 E.	14 35 W.	N. 23 0 E.	2 35 W.	N. 17 15 E.	7 10 E.	East, ligl
10	29 0	42 47	62 30	N. 42 30 E.	6 10 W.	15 0	8 50 E.	N. 51 56 E.	N. 44 0 E.	7 20 E.	N. 34 0 E.	17 20 E.	N. 23 0 E.	27 20 E.	Do.
11	30 56	42 6	64 30	N. 25 30 E.	7 28 W.	17 30	10 2 E.	N. 35 32 E.	N. 47 0 E.	11 26 W.	N. 36 30 E.	0 58 W.	N. 22 30 E.	13 2 E.	Do., fresh
12	33 6	41 16	66 33	N. 42 0 E.	11 52 W.	20 0	8 8 E.	N. 50 8 E.	N. 61 30 E.	11 22 W.	N. 50 30 E.	0 22 W.	N. 34 0 E.	16 8 E.	Do.
13	34 55	40 2	67 30	N. 28 30 E.	11 28 W.	22 0	10 32 E.	N. 39 2 E.	N. 50 0 E.	10 58 W.	N. 39 0 E.	0 2 E.	N. 25 0 E.	14 2 E.	Do.
14	36 24	40 1	68 0	N. 46′ 0 E.	10 38 W.	22 40	12 2 E.	N. 58 2 E.	N. 68 30 E.	10 28 W.	N. 59 0 E.	0 58 W.	N. 49 0 E.	9 2 E.	Do.
15	37 46	38 42	69 0	N. 75 0 E.	14 22 W.	24 30	10 8 E.	N. 85 8 E.	S. 88 0 E.	6 52 W.	N. 84 30 E.	0 38 E.	N. 60 0 E.	25 8 E.	Do.
16	39 6	36 46	69 0	N. 87 0 E.	17 18 W.	25 30	8 12 E.	S. 85 48 E.	S. 80 0 E.	5 48 W.	S. 87 30 E.	1 42 W.	N. 68 30 E.	25 42 E.	S.E., squal
17	40 14	34 42	69 30	N. 81 0 E.	19 4 W.	27 0	7 56 E.	N. 88 56 E.	S. 86 0 E.	5 4 W.	N. 87 15 E.	1 41 E.	N. 64 0 E.	24 56 E.	S.E., ligl
18	40 42	34 39	70 0	N. 34 0 E.	18 4 W.	27 20	9 16 E.	N. 43 16 E.	N. 55 0 E.	11 44 W.	N. 45 0 E.	1 44 W.	N. 25 30 E.	17 46 E.	Faint air
19	41 39	34 2	70 15	N. 56 45 E.	17 50 W.	28 0	12 10 E.	N. 68 58 E.	N. 77 0 E.	8 5 W.	N. 67 30 E.	1 25 E.	N. 47 0 E.	21 55 E.	Do.
20	42 30	33 41	70 30	N. 56 30 E.	18 34 W.	29 0	10 26 E.	N. 66 56 E.	N. 76 30 E.	9 34 W.	N. 67 30 E.	0 34 W.	N. 45 0 E.	21 56 E.	Do.
21	43 16	33 9	71 0	N. 56 30 E.	18 25 W.	30 0	11 35 E.	N. 65 5 E.	N. 77 0 E.	8 55 W.	N. 67 30 E.	0 35 E.	N. 45 0 E.	23 5 E.	Do.
22	43 32	33 12	71 0	S. 87 30 E.	22 42 W.	30 15	7 33 E.	S. 79 57 E.	S. 80 30 E.	0 33 E.	S. 80 0 E.	0 3 E.	N. 70 30 E.	29 33 E.	Do.
23	43 44	31 43	71 0	N. 84 30 E.	23 30 W.	30 20	7 0 E.	S. 88 30 E.	S. 83 0 E.	5 30 W.	East.	1 30 E.	N. 67 15 E.	24 15 E.	Do., an light
24	43 48	29 3	70 30	S. 45 0 E.	21 54 W.	30 0	8 6 E.	S. 34 54 E.	S. 42 0 E.	7 6 E.	S. 42 30 E.	7 36 E.	S. 60 0 E.	25 6 E.	E.N.E., l
25	44 2	28 42	70 30	N. 39 15 E.	17 23 W.	30 0	2 47 E.	N. 42 2 E.	N. 56 0 E.	13 58 W.	N. 41 45 E.	0 17 W.	N. 27 45 E.	14 17 E.	Faint a ble.
26	44 4	28 41	70 30	N. 34 45 E.	20 4 W.	30 0	9 56 E.	N. 44 4 E.	N. 56 30 E.	11 49 W.	N. 47 45 E.	3 4 W.	N. 29 0 E.	15 41 E.	Do.
28	45 12	25 34	70 30	S. 83 0 E.	25 34 W.	30 30	4 56 E.	S. 78 4 E.	S. 75 0 E.	3 4 W.	S. 79 0 E.	0 56 E.	N. 77 0 E.	24 56 E.	Westerly
29	46 14	22 53	70 30	N. 84 30 E.	21 44 W.	30 30	8 46 E.	S. 86 44 E.	S. 82 0 E.	4 44 W.	East.	3 16 E.	N. 64 30 E.	28 46 E.	S.W., fr
30	47 38	19 27	70 30	N. 79 0 E.	20 58 W.	29 30	8 30 E.	N. 87 30 E.	S. 85 0 E.	7 30 W.	N. 87 30 E.	0 0	N. 64 30 E.	23 0 E.	S.W. stron
April 2	48 12	13 24	70 0	N. 61 30 E.	14 56 W.	27 30	12 34 E.	N. 74 4 E.	S. 85 0 E.	15 56 W.	N. 72 30 E.	4 2 E.	N. 70 30 E.	3 34 E.	Mar. 31 Terri the Baro
3	50 0	11 57	70 0	N. 36 30 E.	12 34 W.	27 15	14 41 E.	N. 51 11 E.	N. 66 30 E.	15 19 W.	N. 50 30 E.	0 41 E.	N. 47 30 E.	3 41 E.	Variable
4	50 18	12 31	70 30	N. 84 0 E.	14 0 W.	27 40	13 40 E.	S. 82 20 E.	S. 78 0 E.	4 20 W.	S. 87 30 E.	5 10 E.	S. 84 0 E.	1 40 E.	Do. from
5	50 33	11 44	70 15	N. 17 30 E.	24 49 W.	27 15	2 26 E.	N. 19 56 E.	N. 36 30 E.	16 34 W.	N. 20 0 E.	0 4 E.	N. 13 0 E.	6 56 E.	Light fr
6	50 46	11 46	70 30	N. 17 15 E.	14 38 W.	27 30	12 52 E.	N. 83 7 E.	S. 88 0 E.	8 53 W.	N. 78 30 E.	4 37 E.	N. 78 30 E.	4 37 E.	Calm.
7	51 22	10 16	70 30	N. 84 15 E.	11 30 W.	26 45	15 15 E.	S. 80 30 E.	S. 79 0 E.	1 30 W.	S. 87 30 E.	7 0 E.	S. 87 30 E.	7 0 E.	Modera ward.

In the following extract from the log of the second voyage of the "Slieve Donard" only the observations made ship's head was within about two points of East and West have been selected; the chief object being to show th moving the steering compass nearer to the vertical iron bar, which was introduced to compensate the changing attracti

LIVERPOOL TO CALCUTTA. Second Voyage.

1860. June 16*	35 45	14 6	..	S. 79 0 W.	3 32	25 0	5 22 W.	S. 73 38 W.	S. 72 0 W.	1 38 E.	S. 67 30 W.	6 8 E.	S. 68 30 W.	5 8 E.	1st part and c light b
July 27	South. 34 52	19 10	..	S. 64 30 E.	13 56	8 0	5 56 W.	S. 70 26 E.	S. 65 0 E.	5 11 W.	S. 67 30 E.	3 26 W.	S. 70 0 E.	0 26 W.	1st pa breeze rain; rate a
29	35 27	12 59	..	S. 70 30 E.	13 56	12 30	1 26 W.	S. 71 56 E.	S. 68 30 E.	3 26 W.	S. 73 30 E.	6 34 E.	S. 70 30 E.	1 26 W.	Fresh cloud
30	35 59	7 33	..	S. 72 30 E.	17 56	15 0	2 56 W.	S. 75 26 E.	S. 76 0 E.	0 26 W.	S. 79 30 E.	3 4 E.	S. 70 30 E.	5 56 W.	Increas fine, S.W.

* In reference to several apparent discrepancies in the deviations in the above extract, Captain Thompson stated that frequently separate azimuths were ta compass instead of simultaneous readings; and thus ship's head correct magnetic by mast compass is not always comparable with ship's head as shown compasses.—W. W. R.

"Slieve Donard," Captain Thompson, Liverpool to Calcutta—*continued.*

ong.	Heel. P. Port. S. Starboard.	Mast Compass. Ship's Head.	Total Error.	Variation.	Deviation.	Ship's Head, Correct Magnetic.	Gowland's Compass. Ship's Head.	Deviation.	Tell-tale Compass. Ship's Head.	Deviation.	Steering Compass. Ship's Head.	Deviation.	Remarks, Wind, &c.
ast.		° ′	West. ° ′	West. ° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	
38	..	S. 73 0 E.	22 42	32 0	9 18 E.	S. 63 42 E.	S. 67 0 E.	3 18 E.	S. 84 30 E.	20 48 E.	S. 70 30 E.	7 18 E.	Moderate breeze and cloudy.
est. 16	..	S. 73 0 E.	22 52	27 0	4 8 E.	S. 73 0 E.	S. 72 0 E.	3 8 E.	N. 84 30 E.	27 22 E.	S. 73 0 E.	4 30 E.	Increasing breeze; latter part strong gale with a heavy sea.
22	..	S. 64 30 E.	26 20	25 0	1 20 W.	S. 85 20 E.	S. 64 30 E.	1 20 W.	S. 88 0 E.	18 40 E.	S. 70 30 E.	12 40 E.	Strong breeze, with a very heavy sea.
52	..	S. 81 0 E.	31 55	23 30	8 25 W.	S. 89 25 E.	N. 87 0 E.	6 25 W.	N. 72 30 E.	22 35 E.	N. 84 30 E.	6 5 E.	Do. do., latter part strong gale.
6	..	S. 89 0 E.	14 40	20 30	5 50 E.	S. 83 10 E.	S. 89 6 E.	5 50 E.	N. 70 30 E.	26 20 E.	N. 87 0 E.	0 20 E.	Increasing gale, heavy sea running.
6	..	N. 88 0 E.	14 16	20 30	6 14 E.	S. 85 46 E.	S. 89 0 E.	3 44 E.	N. 70 30 E.	23 44 E.	N. 86 30 E.	7 44 E.	..
51	..	S. 78 30 E.	13 56	19 30	5 34 E.	S. 72 56 E.	S. 77 0 E.	4 4 E.	N. 81 30 E.	25 34 E.	S. 79 0 E.	5 30 E.	..

HOMEWARD VOYAGE.

23	2 S.	S. 79 0 W.	1 0	..	1 0 W.	S. 78 0 W.	S. 83 0 W.	5 0 W.	S. 79 0 W.	1 0 W.	S. 75 30 W.	2 30 E.	S.E., light airs and cloudy.
..	2 S.	S. 79 0 W.	1 26	..	1 26 W.	S. 77 34 W.	S. 83 0 W.	5 26 W.	S. 79 0 W.	1 26 W.	S. 75 30 W.	2 4 E.	
0	..	S. 75 30 W.	13 32	11 0	2 32 W.	S. 74 58 W.	S. 81 0 W.	8 2 W.	S. 79 0 W.	6 2 W.	S. 69 0 W.	4 2 E.	S.E., light winds with heavy head sea.
..	..	S. 77 30 W.	12 16	..	1 16 W.	S. 74 14 W.	S. 84 0 W.	7 46 W.	S. 81 0 W.	4 16 W.	S. 74 0 W.	2 44 E.	
19	..	N. 87 30 W.	13 4	13 0	0 4 W.	N. 87 26 W.	N. 80 0 W.	7 34 W.	N. 83 30 W.	4 4 W.	N. 90 0 W.	3 26 E.	E.S.E., light winds; clear weather.
..	..	N. 87 0 W.	13 52	..	0 52 W.	N. 86 8 W.	N. 81 30 W.	5 52 W.	N. 86 0 W.	3 52 W.	S. 88 0 W.	4 38 E.	
43	3 S.	N. 76 30 W.	12 40	14 0	1 20 E.	N. 75 10 W.	N. 72 0 W.	6 10 W.	N. 75 30 W.	0 10 W.	S. 81 0 W.	5 21 E.	Easterly, light airs and clear weather.
..	..	N. 76 30 W.	12 14	..	1 46 E.	N. 74 44 W.	N. 72 30 W.	2 14 W.	N. 76 30 W.	0 46 E.	N. 80 0 W.	5 16 E.	
57	..	N. 78 30 W.	18 22	17 0	1 22 W.	N. 79 52 W.	N. 74 30 W.	4 22 W.	N. 78 30 W.	1 22 W.	N. 82 30 W.	4 38 E.	Easterly, light breeze and fine.
..	..	N. 78 12 W.	18 12	17 0	1 12 W.	N. 77 0 W.	N. 72 30 W.	4 12 W.	N. 77 0 W.	1 12 W.	N. 81 30 W.	4 48 E.	
38	..	N. 87 0 W.	23 28	18 0	5 28 W.	N. 92 28 W.	N. 87 0 W.	5 28 W.	N. 88 0 W.	4 28 W.	S. 84 0 W.	4 32 E.	East, light breeze and fine.
..	..	N. 90 0 W.	23 30	..	5 30 W.	N. 95 30 W.	N. 90 0 W.	5 30 W.	S. 89 0 W.	5 0 W.	S. 81 0 W.	3 30 E.	
39	..	N. 89 0 W.	19 32	18 30	1 2 W.	S. 89 58 W.	N. 84 30 W.	5 32 W.	N. 88 0 W.	1 32 W.	S. 86 30 W.	3 58 E.	Light and variable between North and East.
..	..	N. 90 0 W.	20 38	..	2 8 W.	S. 87 52 W.	N. 85 0 W.	7 8 W.	N. 89 0 W.	3 8 W.	S. 85 0 W.	2 52 E.	
0	2 P.	N. 78 30 W.	21 20	18 45	2 35 W.	N. 81 5 W.	N. 75 0 W.	6 5 W.	N. 78 30 W.	2 35 W.	N. 84 30 W.	1 55 E.	Faint airs and variable from N.E. to N.
..	..	N. 84 0 W.	19 48	..	1 3 W.	N. 85 3 W.	N. 76 0 W.	9 3 W.	N. 81 30 W.	3 33 W.	N. 88 0 W.	2 57 E.	
39	..	N. 83 30 W.	21 14	21 0	0 14 W.	N. 83 44 W.	N. 78 0 W.	5 44 W.	N. 82 30 W.	1 11 W.	N. 90 0 W.	5 46 E.	N.-Easterly, light airs and fine; latter part moderate breeze.
..	..	N. 83 0 W.	21 8	..	0 8 W.	N. 83 8 W.	N. 78 30 W.	4 38 W.	N. 81 30 W.	1 38 W.	N. 88 30 W.	5 22 E.	
22	4 P.	S. 88 30 W.	22 40	21 30	1 10 W.	S. 87 20 W.	S. 83 0 W.	5 40 W.	S. 80 0 W.	2 40 W.	S. 73 0 W.	4 20 E.	Steady breeze and clear; latter part variable and squally.
21	3 P.	S. 84 0 W.	23 48	22 0	1 48 W.	S. 84 48 W.	N. 80 0 W.	5 48 W.	N. 80 30 W.	5 18 W.	N. 87 0 W.	1 12 E.	S.W., moderate breeze and cloudy.
..	..	S. 84 30 W.	24 38	..	2 38 W.	N. 87 8 W.	N. 80 30 W.	7 8 W.	N. 83 30 W.	3 38 W.	N. 90 0 W.	2 22 E.	
0 58	10 S.	West.	27 14	23 0	4 14 W.	S. 85 46 W.	N. 85 30 W.	7 44 W.	N. 88 0 W.	6 44 W.	N. 84 0 W.	1 46 E.	S.W., moderate breeze and squally.
..	..	West.	27 20	..	4 20 W.	S. 85 40 W.	N. 87 0 W.	9 20 W.	N. 88 0 W.	8 0 W.	N. 83 0 W.	1 0 E.	
38 30	..	N. 87 0 W.	27 50	24 0	3 50 W.	S. 89 10 W.	N. 82 0 W.	8 50 W.	N. 85 0 W.	6 5 W.	N. 88 0 W.	1 10 E.	Light airs, variable between S. and E. with clouds passing; squalls with rain.
..	..	N. 86 30 W.	26 10	..	2 10 W.	N. 88 40 W.	N. 80 30 W.	8 40 W.	N. 82 30 W.	6 10 W.	N. 90 0 W.	1 20 E.	
29 59	2 P.	S. 88 0 W.	29 56	31 0	1 4 E.	S. 89 41 W.	N. 88 30 W.	2 36 W.	N. 82 30 W.	8 26 W.	S. 83 30 W.	5 34 E.	1st part squally with rain; 2nd part, light airs and variable.
..	..	N. 87 0 W.	32 42	..	1 42 W.	N. 88 42 W.	N. 85 0 W.	3 42 W.	N. 78 30 W.	10 12 W.	S. 89 0 W.	2 18 E.	
26 32	..	N. 62 30 W.	28 32	30 0	1 28 E.	..	..	..	..	..	..	..	..
24 41	..	N. 73 30 W.	27 30	30 0	2 30 E.	N. 71 0 W.	N. 67 30 W.	3 0 W.	N. 62 0 W.	8 30 W.	N. 71 30 W.	1 0 E.	Light airs and variable.
..	..	N. 72 0 W.	29 30	..	0 30 E.	N. 71 30 W.	N. 67 30 W.	4 30 W.	N. 62 0 W.	10 0 W.	N. 73 30 W.	1 0 E.	
West. 27 56	7 P.	N. 73 0 W.	16 0	12 30	3 30 W.	N. 76 30 W.	N. 70 0 W.	4 30 W.	N. 75 0 W.	2 0 W.	N. 76 0 W.	1 0 W.	Northerly, light winds and clear weather.
30 14	6 P.	N. 75 0 W.	15 58	11 20	4 38 W.	N. 79 38 W.	N. 74 0 W.	5 38 W.	N. 73 0 W.	6 38 W.	N. 74 0 W.	5 38 W.	Do. wind and weather.
32 46	3 S.	N. 81 30 E.	14 30	19 30	5 0 E.	N. 86 30 E.	N. 88 30 E.	2 0 W.	N. 84 0 E.	2 30 E.	N. 82 0 E.	4 30 E.	Heavy gusts of wind split and carried away sails.
16 0	9 S.	East.	17 42	27 0	9 18 E.	S. 80 42 E.	S. 87 30 E.	6 48 E.	East.	9 18 E.	S. 86 0 E.	E.	Strong breeze and squally with rain.
11 2	..	N. 70 30 E.	14 5	28 0	13 4 E.	N. 83 34 E.	N. 83 30 E.	0 4 W.	N. 76 0 E.	7 34 E.	N. 82 0 E.	1 34 E.	..
..	..	N. 79 0 E.	15 30	..	12 30 E.	N. 91 30 E.	N. 88 0 E.	3 30 W.	N. 84 30 E.	7 0 E.	East.	1 30 E.	..

APPENDIX N.

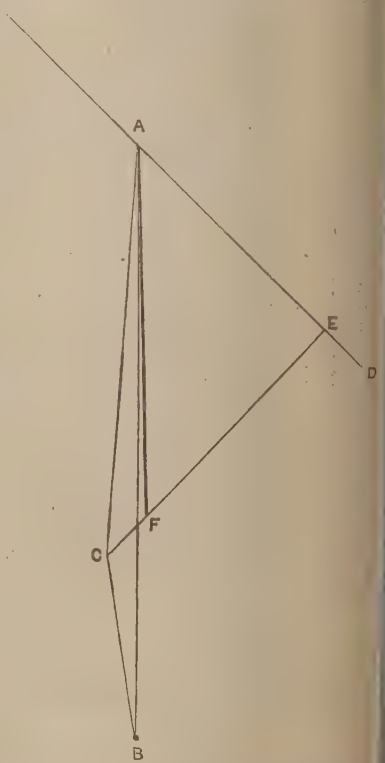
"Great Eastern" Steamer.

The magnetic experiments on board the "Great Eastern" were commenced in July 1857. At this time the decks were not completed, so that there was little choice of position for the compass except near to the bulk heads. The stations selected for experiments were generally as nearly as possible over a bulk head. The observations which are tabulated below, with the results of subsequent experiments, show the great difference which two or three feet before or two or three feet abaft a bulk head will make in the deviations of the compass. In November of the same year some additional observations were made at stations nearer to the stern, in positions which were inaccessible in July. All the observations indicate a strong attraction of the North end of the needle towards the starboard side, and, with one exception, which is easily explained, towards the bow of the ship, these being the directions which would be indicated by the ship's position while building, which was S. 29° 50′ E.

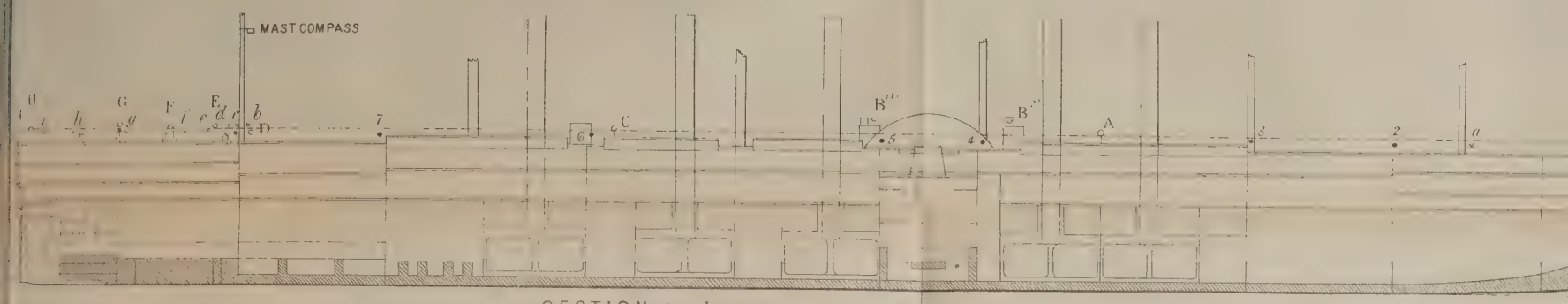
Some further experiments were made in Sept. 1859, a few days before the ship left the Thames for Portland, when her head was S. 46° 20′ E. correct magnetic. It will be observed that these experiments show an increased attraction to the starboard side, and a decrease in the attraction towards the bow; both are probably due to her change of position. On each occasion observations were also made to test the ship's vertical magnetism. These, like the external experiments made almost simultaneously by Mr. Evans, showed a strong North polar attraction in the fore part of the ship, and the contrary attraction near the stern. Very near the stern the magnetism was sufficient to upset the induction due to nearly sixty feet of vertical iron, and to deflect upwards the North end of the dipping needle with a force exceeding that of the earth's horizontal magnetism at the station.

The vertical force experiments which were made near the middle of the ship when she lay off Deptford showed much less vertical magnetism than the previous experiments which were made before the iron masts and funnels were fixed. Several experiments made on board large iron steamers at Liverpool by Mr. Towson and the writer exhibited similar results. The dipping needle in situations near a funnel in every case showed a considerable minus dip.

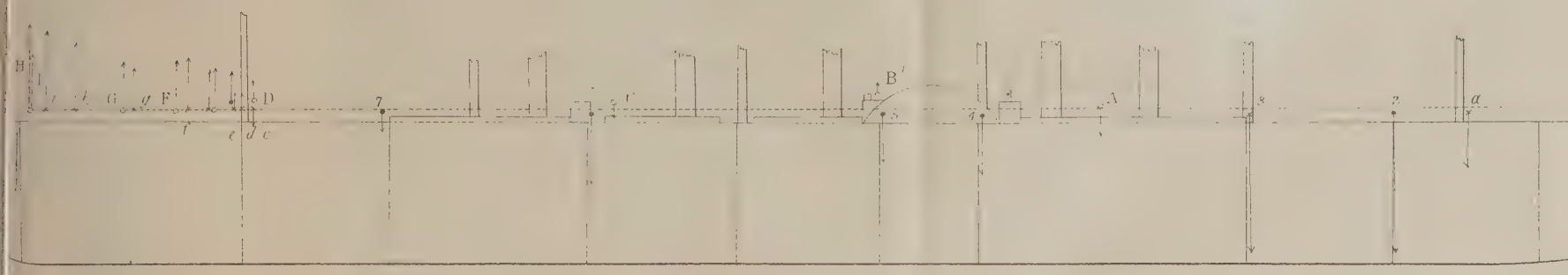
The experiments on the 5th of Sept. were made in conjunction with Mr. Evans, with a view to the selection of the best position for the standard compass, so far as that could be ascertained by a single observation with the ship in a fixed position. The following diagram will illustrate the mode in which these observations were discussed, as well as how the details in the following table were obtained. Taking station F. as an example, ship's head by compass is N. 143° E., ship's head correct magnetic at the time, being N. 133° 40′ E., thus showing a deviation of 9° 20′ W. The needle, which on shore vibrated about 21 times per minute, here vibrated at the rate of 11·5 times per minute. As the forces causing the vibrations will be in proportion to the squares of the numbers observed in equal times, the forces are as 132·25 to 441, or taking the latter as unity, the force observed on board, as measured in the direction of the needle when at rest, will be equal to 0·3 of the earth's horizontal magnetic force at Deptford. Draw the line AB to represent in direction and amount the earth's horizontal magnetism, or unity; from B draw the line BC to represent in the same way the force observed on board, making the angle ABC equal to the deviation; join AC, and the line AC will represent in amount and direction the magnetic force due to the ship alone. Through A draw the line AD making the angle DAB equal 46° 20′, to indicate the direction of the ship's keel, D being towards the bow, then DAC will represent the starboard angle of the observed magnetism of the ship, and resolving this force into the direction of and at right angles to the line of the keel, we obtain AE for the ship's magnetism towards the bow and EC for the ship's force to starboard. Speaking approximately, AE may be taken as co-efficient B = 0·450 = 26° 45′, and the line EC = 0·546 will represent co-efficient C plus that part of the transverse induced magnetism which produces quadrantal deviation, the amount of which must be now roughly estimated. The discussion of a great number of deviation tables proves that the average quadrantal deviation in large iron ships for compasses at about the same distance a this from the deck will be very near 4°, which represents a capacity for horizontal induction equ $\frac{\text{sine } 4°}{\text{sine } 45°} = 0·1$ of earth's horizontal force; but as quadrantal deviation of more than twice thi amount has been known to occur, a capacity equal to 0·15 may fairly be taken for this large shi Considerations which affect an estimate of this kind will be discussed further on in the account these experiments. Multiplying 0·15 by sine azimuth of ship's head (or cosine of the angle whic the transverse iron makes with the magnetic meridian), 0·108 is obtained as approximate part the ship's transverse magnetism due to horizontal induction, leaving 0·438 = 25° 59′ for approxima



"GREAT EASTERN" STEAMER.

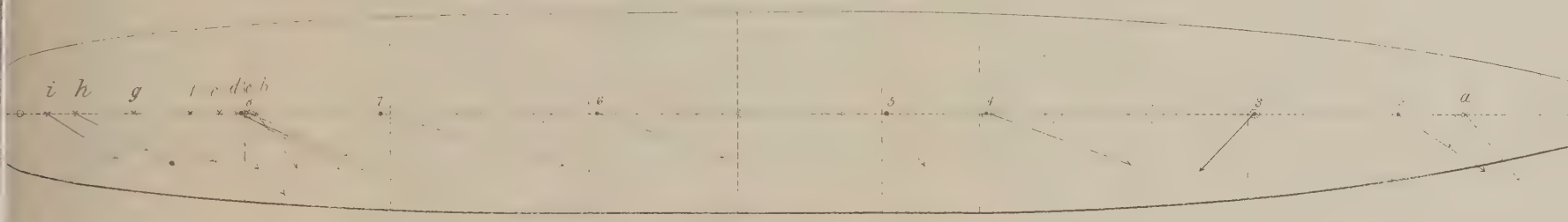


SECTION *to show arrangement of Bulk Heads. &c. &c.*



The vertical arrows indicate relative amount and direction of Ship's Vertical Magnetic Force.

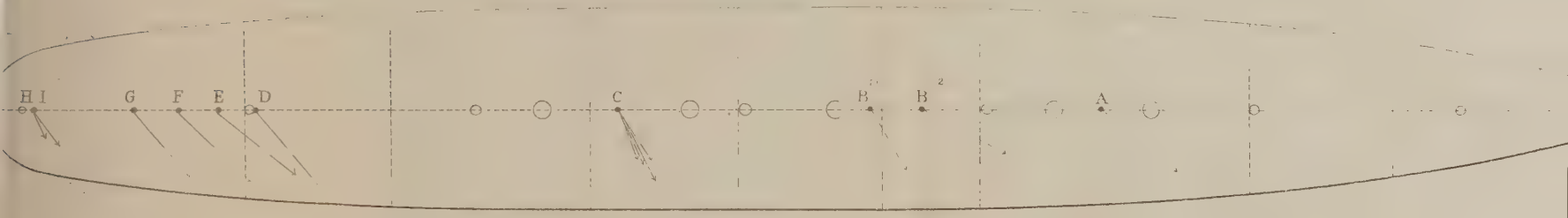
Scale for Vertical Force in Units of Earths Horizontal Force



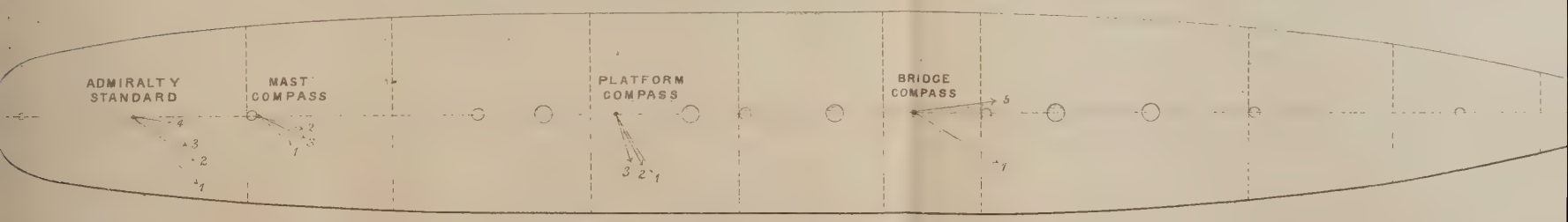
The arrows indicate Direction and relative amount of Ship's Horizontal Magnetic Force in terms of Earth's Horizontal Force.

0 1

Scale for Horizontal Magnetic Force in Units of Earths Horizontal Force



The arrows indicate Direction and relative amount of Ship's Horizontal Magnetic Force as deduced from the Deviation Tables.



ADMIRALTY STANDARD COMPASS

1. *Thames*
2. *Portland*
3. *Holyhead*
4. *Southampton*

MAST COMPASS

1 *Thames*
2 *Portland*
3 *Holyhead*

DIPPING NEEDLE COMPASS on Platform

1 *Thames*
2 *Portland*
3 *Holyhead*

Dº NEAR FOREMOST BRIDGE.

1. *Thames*
5. *Milford*

value of co-efficient C; it being evident from the position of the ship that the inductive magnetism of the ship is in the same direction as the transverse polar magnetism, and conspires with it to make up the observed force of 0·546. In the figure, CF being made equal 0·108, FE the remainder of CE will represent ship's starboard polar force; and AF will represent in amount and direction the ship's total polar force at this station, or 0·630, equal to a maximum polar deviation of 39° 3′ at a starboard angle DAF, equal to 44° 5′.

There is thus obtained with very little trouble, and in less time than is taken to describe it, the approximate deviations belonging to the selected position, and a means of comparing this position with any others, so as to choose that which appears best for the compass.

The whole of the details given in the following tables for ship's horizontal, vertical, and total force were obtained in this manner by construction.

On September the 7th, when the ship commenced to steam down the Thames, it became evident that it would be useless to attempt to carry out any pre-arranged sets of experiments, and that only by mutual co-operation could any satisfactory observations be made. It was therefore agreed that primary attention should be given to the station selected for the Admiralty standard compass; that Mr. Evans should undertake to read ship's head by compass, and that the writer should simultaneously obtain ship's head correct magnetic by means of azimuth tables which he had previously arranged, and which were used in conjunction with the dumb-card or pelorus invented by Lieut. Friend: the observations at any other stations being left for such opportunities as might occur. Fortunately the sun shone out at frequent intervals, and a satisfactory number of observations were obtained between Deptford and Purfleet, when the ship anchored for the night. At Purfleet several observations were made with the vibration and dipping needle compass, and on the following day a very complete set of observations was obtained by means of this compass near the foremost bridge, as the ship steamed down the river, and rounded to at the Nore. Here the sky became overcast, but the appearance of the sun for a few minutes gave the opportunity for ascertaining the bearings of two or three distant objects on shore, which were found very valuable for making some further observations for deviation, and also for completing the adjustment of the compensated compasses. In the same manner were obtained the correct bearings of a distant headland at Portland, and of the Rivel mountain in Carnarvonshire, when the ship was at Holyhead, as a means of ascertaining the deviations at these places.

For the deviations observed at Southampton in 1860 and at Milford in the present year the Committee is indebted entirely to Mr. Evans.

As the general result of the experiments made on board the "Great Eastern" is given in the body of the report, and most of the details will be found in the tables which are appended to this paper, it will only be necessary here to call attention to one circumstance, which had not been observed when the report was written, and which illustrates in a remarkable manner the effect on the compass of keeping an iron ship for a long time in the same position. The observations made by Mr. Evans at Milford, after the ship had been lying for more than six months on the gridiron with her head about W.N.W., or not far from the opposite direction to that in which she lay at Deptford, show that the ship's magnetism at the foremost bridge station was completely subverted, having changed from an attraction of 17° 47′ to starboard to more than 3° to port. This is equal to 0·3577, or more than one-third of the earth's horizontal force at these places.

The position of each compass is described in the following table, and is also shown in Plate XVIII. This plate also shows graphically the relative amount and direction of the ship's horizontal and vertical magnetic force.

It is worthy of remark, that while the attraction towards the head at station C at Holyhead was only 5° 40′, at Liverpool, in June 1861, at a position about seven feet above this station, the headward attraction is so much as 15° 35′; another example that in ships built with head to the southward the attraction to the bow becomes more evident as the compass is raised from the deck, at the after part of the ship.

HORIZONTAL and VERTICAL MAGNETIC Fo

(The details are obta

Index to Station, &c.	Position of the Compass. (*See also Plate* XVIII.) — Height of Needle above the deck, 4 feet 6½ inches.	Ship's Head Correct Magnetic.	Ship's Head by Compass.	Deviation.	Horizontal Vibrations per Min. the Vib. on Shore being 21 per Minute.	Vibrations.[2]	Force in Direction of Needle in Terms of Earth's Horizontal Force.	Ship's Force.	Direction of Ship's Force.	Star A. obs Sh Fo
	BLACKWALL, July 2d & 6th, 1857.	° ′	° ′	° ′					° ′	
1	Station, 33 feet 6 in. from the inside of the stem	N. 150 10 E.	N. 155 0 E.	4 50 W.	14·	196·	·444	·558	N. 183 50 E.	3
2	Station, immediately over the second large bulkhead from the stem	..	N. 166 0 E.	15 50 W.	12·	144·	·326	·690	187 10	3
3	Station, 4 feet before the third large bulkhead from the stem; the bulkhead rises about 2 feet 3 in. above the deck forming the combing of a very large hatchway	..	N. 177 0 E.	26 50 W.	23·2	538·24	1·220	·551	278 50	12
4	Station, 1 foot before a bulkhead and nearly abreast the fore part of the paddle-box	..	N. 44 30 E.	105 40 E.	7·2	51·84	·117	1·034	175 50	2
5	Station, 2 feet before a bulkhead and nearly abreast the after part of the paddle-box	..	N. 170 15 E.	20 5 W.	16·3	265·69	·602	·482	181 0	6
6	Station, about 9 inches before the seventh large bulkhead from the stem, between two large hatchways, the after one open, the fore one with beams across at 2 feet 3 in. above the deck	..	N. 116 45 E.	33 25 E.	7·9	62·41	·142	·886	174 50	2
7	Station, 4 feet abaft the next bulkhead to station 6	..	N. 29 15 E.	120 55 E.	10·2	104·04	·236	1·144	169 15	1
8	Station, immediately over the last large bulkhead aft	..	N. 150 15 E.	0 5 W.	10·8	116·64	·264	·736	180 3	2
	BLACKWALL, November 2d & 5th, 1857.									
a	Station, on middle of hatchway between the first and second large bulkheads	..	N. 176 30 E.	26 20 W.	14·48	209·67	·475	·599	199 40	4
b	Station, 2 feet from fore edge of plating over the aftermost large bulkhead	..	N. 173 15 E.	23 5 W.	16·08	258·57	·586	·515	206 30	5
c	Station, immediately over the aftermost bulkhead	..	N. 168 0 E.	17 50 W.	10·66	107·65	·254	·761	185 45	3
d	Station, 2 feet from aft edge of plating over the aftermost large bulkhead	..	N. 128 10 E.	22 0 E.	5·46	29·81	·068	·940	178 20	2
e	Station, on planking 12 feet abaft the station *d*	..	N. 177 45 E.	27 35 W.	12·	144·	·327	·728	206 20	5
f	Station, 12 feet abaft station *e*	..	N. 173 30 E.	23 20 W.	13·67	186·87	·424	·628	195 10	4
g	Station, in the centre of the space between stations *f* and *h*	..	N. 160 30 E.	10 20 W.	12·34	152·28	·345	·660	185 45	3
h	Station, between two hatchways about 21 feet from front of rudder head	..	N. 154 0 E.	3 50 W.	13·95	194·60	·441	·561	182 50	3
i	Station, 10 feet 6 in. from front of rudder head	..	N. 161 30 E.	11 20 W.	13·68	187·14	·424	·590	188 0	3
	Off DEPTFORD, Sept. 5, 1859. Height of needle, 4 feet 9¾ inches.									
A	Station, midway between the two foremost funnels, 4 ft. 9¾ in. above the platform	N. 133 40 E.	N. 131 30 E.	2 10 E.	11·15	124·32	·282	·715	179 5	1
B (1)	Station, on house in front of bridge (Needle about 13 feet above the deck).	..	N. 152 45 E.	19 5 W.	15·	255·	·510	·541	198 10	1
C	Station, 5 feet from after end of raised platform between the after main and the mizenmast, and 4 feet 9¾ in. above the platform which is 2 feet 3 in. from the deck	..	N. 157 40 E.	24 0 W.	14·43	208·22	·472	·598	199 0	1
D	Station, 3 feet aft of hatch and immediately before the mizenmast	..	N. 151 0 E.	17 20 W.	12·36	152·77	·346	·678	188 55	1
E	Station, 6 feet 6 ins. aft of the hatchway immediately abaft the mizenmast	..	N. 132 0 E.	1 40 E.	10·85	117·72	·267	·733	179 15	1
F	Station of Mr. Gray's standard compass, 58 feet forward from rudder head	..	N. 143 0 E.	9 20 W.	11·5	132·25	·300	·710	184 10	1
G	Station of Admiralty standard compass, 41 feet forward from rudder head	..	N. 145 20 E.	11 40 W.	12·55	157·49	·357	·655	186 20	1
H	Station of compass in front of the port side of steering wheel, about 6 feet above the deck	..	N. 149 15 E.	15 35 W.	13·33	173·33	·393	·630	189 50	1
I	Station of compass in front of the starboard side of the steering wheel, about 6 feet above the deck	..	N. 149 45 E.	16 5 W.	12·4	153·76	·349	·674	188 30	
	PURFLEET, Sept. 7, 1859.									
H	Station of port steering compass	N. 45 30 W. N. 56 0 W. (about)	N. 44 30 W. N. 54 0 W.	1 0 W.	22·02	484·84	1·099	·101	349 0	
I	Station of starboard steering compass	N. 67 30 W. N. 48 30 W. (about)	N. 60 30 W. N. 43 30 W.	6 0 W.	22·43	503·10	1·141	·183	316 35	

MENTS made on board the "GREAT EASTERN."
truction only.)

Ship's Force to Head, in terms of Earth's Hor. Force.	or B−	Ship's Force to Starboard, as observed.	Correction for + D.	as corrected for + D.	C=	Ship's Total Polar Force.	Maximum Polar Deviation.	Starboard Angle of Ship's Polar Force.	Vertical Vibrations.	Vertical Vibration.²	Vertical Force in Terms of Earth's Horizontal Force.	Ship's Vertical Force.	Ship's Total Magnetic Force.	At Angle from the Vertical.
	° ′				° ′		° ′	° ′						° ′
·465	27 43	·308	−·075	·233	13 29	·520	31 20	26 15	..	..	..	..	..	..
·549	33 18	·415	...	·340	19 53	·647	40 19	31 50	48	2304	5·224	2·706	2·775	13 20
·347	−20 18	·429	..	·354	20 44	·498	29 52	133 50	48	2304	5·224	2·706	2·748	10 20
·949	71 38	·412	..	·337	19 42	1·007	180 0 Needle without directive power.	19 40	39·8	1584·04	3·592	1·074	1·467	43 15
·274	15 54	·395	..	·320	18 42	·419	24 46	54 35	38·6	1489·96	3·378	·860	·954	26 15
·805	53 31	·365	..	·290	16 52	·855	58 46	20 0	41·2	1697·44	3·849	1·331	1·578	33 0
·077	..	·380	..	·305	17 46	1·120	Needle always within 60·56 of ship's neutral point.	15 50	35·6	1267·36	2·869	·351	1·172	72 30
·631	41 23	·376	..	·301	17 31	·729	46 48	24 40	20·33	860·25	1·951	−·567	·923	−52 0
·388	22 50	·465	..	·390	22 58	·551	33 26	49 30	40·	1600·	3·628	1·090	1·222	27 5
·286	16 37	·426	..	·351	20 33	·454	27 0	51 10	35·15	1235·52	2·8016	·263	·525	60 30
·611	37 40	·443	..	·368	21 36	·717	45 48	31 0	31·58	997·30	2·261	−·277	·767	−59 15
·823	55 23	·439	..	·364	21 21	·906	64 57	23 50	32·09	1029·77	2·335	−·204	·930	−78 0
·542	32 49	·478	..	·403	23 46	·679	42 46	51 5	28·04	786·24	1·783	−·756	1·014	−42 20
·443	26 18	·444	..	·369	21 39	·577	35 14	39 5	25·12	631·01	1·431	−1·108	1·252	−27 50
·536	32 25	·381	..	·306	17 49	·618	38 10	29 50	27·95	781·20	1·771	−·767	·983	−39 10
·471	28 6	·301	..	·226	13 4	·525	31 40	25 50	23·08	532·69	1·208	−1·331	1·431	−21 45
·467	27 50	·360	..	·285	16 34	·549	33 18	31 30	21·39	457·63	1·038	−1·501	1·595	−20 15
									Observed dip on shore with weighted needle.	Dip on board with weighted needle.	Ship's Vertical Force.	Ship's Vertical Force in terms of Earth's Hor. Force.		
									° ′	° ′				
·504	30 16	·509	−·108	·401	23 39	·640	39 48	38 45	44 0	48 55	·1877	·4744	·795	53 20
·233	13 28	·488	..	·380	22 20	·444	26 22	58 35	..	42 31	−·0660	−·1661	·473	−70 30
·249	14 25	·544	..	·436	25 51	·500	30 0	60 35	..	46 42	·0989	·2491	·560	64 10
·384	22 35	·554	..	·446	26 29	·642	39 56	49 0	..	39 15	−·1530	−·3851	·746	−59 30
·518	31 12	·522	..	·414	24 18	·656	41 0	38 30	..	33 12	−·3227	−·8122	1·043	−39 5
·450	26 45	·546	..	·438	25 59	·630	39 3	44 5	..	31 45	−·3592	−·9041	1·130	−34 0
·405	23 53	·516	..	·408	24 5	·577	35 14	46 10	..	31 22	−·3687	−·9282	1·090	−32 5
·350	20 30	·522	..	·414	24 27	·543	32 53	49 45	..	17 15	−·6785	−1·7080	1·790	−17 40
·395	23 16	·542	..	·434	25 43	·587	35 57	48 25	..	21 37	−·5097	−1·2830	1·410	−24 50
·082	4 42	·057	·107	·164	9 27	·186 say ·186	10 43 ..	62 40 ..	.. ..	26 0	−·4949	−1·2450	1·259	− 8·45
·166	9 33	·076	·139	·215	12 25	·275 say ·275	15 58 ..	52 10 ..	.. ..	26 15	−·4894	−1·2331	1·262	−12 40

Index to Station, &c.	Position of the Compass.	Ship's Head correct Magnetic.	Ship's Head by Compass.	Deviation.	Horizontal Vibrations per min. the vib. on shore being 21 per minute.	Vibrations.^{2}	Force in Direction of Needle in terms of earth's Horizontal Force.	Ship's Force.	Direction of Ship's Force.	St... of ...
		° ′	° ′	° ′					° ′	
B (2)	Dipping needle compass on house before the foremost bridge, about 13 feet above the deck:									
	Between Purfleet and the Nore, Sept. 8, 1859.	N. 33 0 E.	N. 8 20 E.	24 40 E.	23·6	556·96	1·263	·539	74 30	
		N. 49 0 E.	N. 17 20 E.	31 40 E.	..	..	..	..	..	
	(Horizontal vibrations of needle, 21 per minute. Dip 68° 30′.)	S. 70 40 E.	N. 69 40 E.	39 30 E.	15·	225·	·510	·688	112 40	
		S. 63 0 E.	N. 80 30 E.	36 30 E.	14·7	216·09	·492	·673	100 0	
		S. 28 0 E.	S. 22 30 E.	5 30 W.	12·52	156·75	·355	·647	183 10	
		S. 17 45 E.	S. 0 25 E.	17 20 W.	..	..	..	..	..	
		S. 88 30 W.	N. 66 0 W.	25 30 W.	22·1	488·41	1·108	·478	180 0	
C	Dipping needle compass on the platform, 2 feet 3 in. above the deck, &c:									
	Near Blackwall, Sept. 5 - -	S. 46 20 E.	S. 22 20 E.	24 0 W.	14·43	208·22	·472	·598	199 0	
	Off Purfleet, Sept. 7 - -	N. 46 48 W.	N. 43 15 W.	3 33 W.	24·08	579·85	1·315	·319	347 40	
		S. 59 0 W.	S. 74 45 W.	15 45 W.	21·24	451·14	1·023	·279	266 10	
		S. 22 30 W.	S. 43 30 W.	21 0 W.	20·16	406·83	·923	·360	247 0	
		S. 11 0 E.	S. 12 45 W.	23 45 W.	19·	361·	·819	·411	232 15	
		S. 15 0 E.	S. 8 40 W.	23 40 W.	18·56	344·27	·783	·424	228 0	
		S. 22 30 E.	S. 1 30 W.	24 0 W.	..	..	..	..	..	
	At the Nore, Sept. 9 - -	S. 22 30 W.	S. 41 40 W.	19 10 W.	20·07	423·49	·972	·328	255 20	
		S. 8 30 W.	S. 28 50 W.	20 20 W.	19·89	395·61	·897	·350	243 10	
		S. 4 0 W.	S. 24 30 W.	20 30 W.	..	..	..	..	..	
		S. 5 0 E.	S. 15 40 W.	20 40 W.	18·41	338·93	·769	·393	223 45	
		S. 10 30 E.	S. 10 15 W.	20 45 W.	18·0	324·	·735	·409	219 30	
	„ Ship under way -	S. 42 30 E.	S. 24 45 E.	17 45 W.	15·71	246·80	·560	·497	200 0	
	„ „ -	S. 52 0 E.	S. 37 30 E.	14 30 W.	14·63	213·04	·483	·548	192 20	
	At Portland, Sept. 10 - -	N. 73 0 W.	N. 66 40 W.	6 20 W.	22·69	514·84	1·167	·199	320 15	
		N. 76 0 W.	N. 68 10 W.	7 50 W.	22·5	506·25	1·148	·203	310 35	
		N. 52 0 W.	N. 53 0 W.	1 0 E.	22·86	522·58	1·187	·184	5 40	
		N. 45 0 W.	N. 47 45 W.	2 45 E.	23·61	557·43	1·264	·267	12 20	
	„ Sept. 12 - -	S. 54 30 W.	S. 67 45 W.	13 15 W.	22·91	524·87	1·190	·324	299 30	
		S. 6 15 E.	S. 13 15 W.	19 30 W.	18·65	347·82	·789	·367	225 15	
	At Holyhead, Oct. 23 & 24, 1859 -	N. 53 40 W.	N. 52 30 W.	1 10 W.	22·06	486·64	1·212	·209	353 20	
	(Horizontal vibrations of needle, 20 per minute. Dip 70° 10′.)	N. 54 23 W.	N. 53 0 W.	1 23 W.	..	..	..	..	..	
		N. 49 52 W.	N. 49 52 W.	0 0	22·18	491·95	1·230	·230	0 0	
		N. 19 15 W.	N. 27 30 W.	8 15 E.	22·22	493·73	1·234	·282	39 30	

board the "GREAT EASTERN." (*Table continued.*)

Ship's Force to Head.		Ship's Force to Starboard.				Ship's Total Polar Force.	Maximum Polar Deviation.	Starboard Angle of Ship's Polar Force.	Dip on Shore with weighted Needle.	Dip on Board with weighted Needle.	Ship's Vertical Force.	Ship's Vertical Force in Terms of Earth's Horizontal Force.	Ship's Total Magnetic Force.	At Angle from the Vertical.
in Terms of Earth's Hor. Force.	or B=	as observed.	Correction for +D.	as corrected for +D.	C=									
	° ′				° ′		° ′	° ′	° ′	° ′				° ′
·406	23 57	·357	−·082	·275	15 58	·490	29 20	34 15	44 0	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	43 40	−·0116	−·0292	..	..
·508	30 32	·460	−·142	·318	18 33	·599	36 48	32 0	..	44 15	·0087	·0219	·600	87 40
·532	32 9	·403	−·134	·269	15 36	·599	36 48	26 50	..	..	..	..	..	..
·553	33 34	·330	−·070	·230	15 5	·610	37 36	25 30	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	45 22	·0488	·1228	..	..
·477	28 39	·013	·150	·163	9 23	·506	30 24	18 30	..	43 15	−·0259	−·0651	·513	96 40
·249	14 25	·544	−·144	·400	23 35	·470	28 2	58 20	..	46 42	·0988	·2487	·535	61 45
·268	15 33	·173	·146	·319	18 36	·419	24 46	51 8	..	46 24	·0874	·2200	·474	61 40
·247	14 18	·127	·171	·298	17 20	·390	22 57	49 50	..	..	..	..	..	..
·254	14 43	·250	·076	·326	19 2	·419	24 46	51 50	..	46 45	·1008	·2537	·493	58 15
·184	10 36	·367	−·038	·329	19 18	·375	22 2	60 40	..	..	..	..	..	..
·187	10 47	·375	−·052	·323	18 51	·377	22 9	59 35	..	..	..	..	..	..
..	..	..	..	..	..	(say ·377)	..	..	..	46 55	·1072	·2698	·460	55 0
·232	..	..	..	·333	..	·408	..	55 14	..	..	..	·2481	·491	59 10
·200	11 32	·266	·076	·342	20 0	·390	22 57	59 30	..	46 55	·1072	·2698	·478	55 0
·203	11 43	·285	·030	·315	18 22	·378	21 54	57 40	..	..	..	..	..	..
..	..	..	..	..	..	(say ·373)	..	..	..	46 42	·0988	·2487	·448	55 45
·260	15 4	·295	−·017	·278	16 9	·380	22 20	47 5	..	46 40	·0986	·2482	·456	56 15
·262	15 11	·314	−·036	·278	16 9	·383	22 31	46 40	..	46 52	·1053	·2650	·466	54 45
·234	13 32	·438	−·135	·303	17 38	·382	22 28	52 40	..	46 30	·0912	·2295	·447	58 50
·240	13 53	·494	−·158	·336	19 38	·411	24 16	55 0	..	6 30	·0912	·2295	·472	60 25
·283	..	..	..	·309	..	·387	..	53 6	..		..	·2485	·461	56 50
·166	9 33	·113	·191	·304	17 42	·346	20 15	60 45	..	..	..	..	..	..
·181	10 26	·094	·194	·288	16 44	·340	19 53	56 55	..	46 32	·0925	·2328	·412	55 50
·100	5 45	·157	·158	·315	18 22	·330	19 16	72 15	..	..	..	..	..	..
·144	8 17	·222	·140	·362	21 14	·430	25 28	69 0	..	..	..	..	..	..
·130	7 28	·285	·163	·448	26 37	·458	27 16	72 50	..	46 20	·0849	·2137	·505	64 20
·229	13 14	·290	−·022	·268	15 33	·349	20 26	49 15	..	46 10	·0785	·1976	·402	60 0
·158	..	..	..	·331	..	·376	..	63 30	..	..	..	·2110	·443	60 30
·141	8 6	·156	·163	·319	18 36	·346	20 15	65 10	45 16	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	47 52	·0679	·1872	·392	61 0
·144	8 17	·174	·152	·326	19 2	·358	20 59	65 37	..	..	..	..	..	..
·163	9 23	·240	·066	·306	17 49	·343	20 4	64 20	..	47 10	·0945	·2619	·433	52 0
·149	..	..	..	·317	..	·349	..	65 2	..	..	..	·2245	·413	56 30

"Great Eastern." Deviation Tables for Admiralty Standard Compass and Mast Compass.

Ship's Head by Compass.	Admiralty Standard Compass.							Mast Compass.		
	River Thames Sept. 7, 1859.	Portland, 10 to 12 September 1859.			Holyhead 22 to 24 October 1859.	Southampton, 13, 14, and 15 June 1860.	†Milford, 26 to 29 April 1861.	River Thames Sept. 7 and 8, 1859.	Portland, 10 to 12 Sept. 1859.	Holyhead 22 to 24 October 1
		When entering the Roads.	While at Anchor afterwards.	At Anchor Sept. 12.						
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
North	26 30 E.	...	...	*17 0 E.	10 30 E.	...	5 40 E.	*11 30 E.	* 5 15 E.	10 45 E
N. by E.	32 30 E.	...	...	23 30 E.	16 20 E.	...	10 10 E.	14 5 E.	10 0 E.	14 45 E
N.N.E.	36 50 E.	...	...	28 0 E.	21 15 E.	...	13 50 E.	16 0 E.	13 10 E.	17 30 E
N.E. by N.	38 50 E.	...	...	30 30 E.	24 20 E.	...	16 10 E.	17 30 E.	15 45 E.	20 0 E
N.E.	39 0 E.	...	...	31 10 E.	25 45 E.	...	17 0 E.	18 15 E.	17 40 E.	21 20 E
N.E. by E.	37 0 E.	...	...	30 30 E.	25 55 E.	...	17 15 E.	18 0 E.	18 45 E.	21 40 E
E.N.E.	33 15 E.	...	...	28 30 E.	24 35 E.	...	16 0 E.	17 15 E.	18 50 E.	21 20 E
E. by N.	28 0 E.	...	...	25 5 E.	22 15 E.	...	14 0 E.	15 20 E.	18 30 E.	20 25 E
East	22 20 E.	...	...	21 20 E.	18 50 E.	...	*11 50 E.	13 45 E.	17 10 E.	18 30 E
E. by S.	15 40 E.	...	...	16 45 E.	14 50 E.	...	9 28 E.	9 55 E.	15 40 E.	16 30 E
E.S.E.	8 50 E.	...	...	11 40 E.	10 10 E.	...	6 40 E.	6 20 E.	13 40 E.	14 0 E
S.E. by E.	2 20 E.	...	...	5 50 E.	5 35 E.	...	4 10 E.	2 35 E.	11 30 E.	11 40 E
S.E.	4 20 W.	...	...	0 0	0 55 E.	...	1 40 E.	0 50 W.	8 50 E.	8 30 E
S.E. by S.	11 5 W.	...	...	5 50 W.	3 25 W.	...	0 10 W.	3 50 W.	6 15 E.	5 20 E
S.S.E.	*17 10 W.	...	...	11 15 W.	7 20 W.	2 0 E.	1 30 W.	6 25 W.	3 30 E.	1 50 E
S. by E.	23 0 W.	...	...	15 40 W.	11 0 W.	0 20 E.	2 30 W.	8 40 W.	0 40 E.	*1 50 E
South	27 30 W.	...	...	19 20 W.	*13 55 W.	1 40 W.	3 25 W.	11 0 W.	2 10 W.	5 35 E
S. by W.	30 40 W.	...	...	22 0 W.	16 0 W.	3 40 W.	4 10 W.	12 50 W.	4 50 W.	8 50
S.S.W.	31 45 W.	...	...	23 15 W.	17 10 W.	4 45 W.	5 0 W.	14 10 W.	7 25 W.	11 20
S.W. by S.	31 50 W.	...	...	24 0 W.	18 5 W.	5 30 W.	6 10 W.	15 0 W.	9 50 W.	13 35
S.W.	30 50 W.	...	...	24 20 W.	18 35 W.	6 30 W.	7 30 W.	15 5 W.	11 40 W.	14 50
S.W. by W.	28 45 W.	...	...	24 0 W.	19 0 W.	8 25 W.	9 30 W.	15 0 W.	13 10 W.	15 30
W.S.W.	26 30 W.	...	...	23 35 W.	19 10 W.	10 15 W.	12 0 W.	14 30 W.	14 10 W.	15 40
W. by S.	24 0 W.	...	...	23 10 W.	19 5 W.	12 0 W.	13 40 W.	13 30 W.	14 30 W.	15 10
West	21 30 W.	20 55 W.	*21 55 W.	22 0 W.	18 40 W.	13 0 W.	14 50 W.	12 50 W.	14 40 W.	14 10
W. by N.	18 0 W.	18 30 W.	19 45 W.	20 30 W.	17 50 W.	14 20 W.	14 50 W.	11 15 W.	13 50 W.	12 40
W.N.W.	14 30 W.	15 36 W.	17 20 W.	18 0 W.	16 40 W.	14 50 W.	14 0 W.	9 10 W.	12 40 W.	10 40
N.W. by W.	9 55 W.	12 25 W.	14 15 W.	15 0 W.	14 0 W.	14 15 W.	12 30 W.	6 15 W.	11 0 W.	8 30
N.W.	4 30 W.	8 0 W.	10 0 W.	11 0 W.	10 10 W.	12 50 W.	10 40 W.	2 40 W.	8 40 W.	5 35
N.W. by N.	1 40 E.	3 0 W.	5 15 W.	6 40 W.	5 30 W.	10 10 W.	7 40 W.	1 40 E.	5 25 W.	2 40
N.N.W.	9 20 E.	2 55 E.	0 25 E.	0 45 W.	0 20 E.	N.N.W. ½ W. 8 0	3 50 W.	5 0 E.	2 0 W.	0 45
N. by W.	18 30 E.	...	...	7 0 E.	4 55 E.	...	0 50 E.	8 30 E.	1 0 E.	5 0

Magnetic Co-efficients (calculated by Mr. Evans).

	° ′	° ′	° ′	° ′	° ′	approximate. ° ′	° ′	° ′	° ′	°
A	− 0 10	...	...	− 1 3	−0 24	...	+ 0 2	+ 0 4	+ 1 21	+ 2
B	+23 13	...	...	+22 42	+19 18	+13 30	+13 14	+12 43	+16 12	+17
C	+25 38	...	...	+16 43	+12 3	+ 1 40	+ 4 28	+11 12	+ 4 20	+ 7
D	+ 4 21	...	...	+ 4 44	+ 4 8	+ 4 20	+ 4 32	+ 1 32	+ 1 30	+ 1
E	− 0 37	...	...	− 0 45	− 0 17	...	+ 1 17	+ 0 4	− 0 10	+ 0

* In each Table the small figures indicate interpolations.

† Through a change in the position of the capstan, this compass was placed about 12 feet forward from its old station, 14 feet 9 i from new position of the spindle of capstan, and 9 feet 3 inches from the nearest end of the magnets in the compensated standard com which had also been moved further forward. Mr. Evans states that he has since determined experimentally that the maximum effect o magnets on the Admiralty compass would not exceed 0° 40′.

"Great Eastern." Deviation Tables for the Dipping Needle Compass.

Ship's Head by Compass.	Station B. On House before the foremost Bridge.		Station C.						On House built above Station C. and rather more than 13 feet above the Deck, Liverpool, June 25 and 26, 1861.
	Between Purfleet and the Nore, Sept. 8, 1859.	Compass placed at same Station at Milford, April 26 to 29 1861.	At Purfleet, Sept. 7 and 8 1859.	At the Nore, Sept. 8 and 9.	Observations made at Portland.			At Holyhead, 22 to 24 Oct. 1859.	
					Sept. 10.	Sept. 11.	Sept. 12.		
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
North	* 17 20 E.	4 40 W.	* 21 30 E.	...	...	...	* 20 20 E.	17 40 E.	9 30 E.
N. by E	26 40 E.	3 0 E.	27 40 E.	...	...	...	25 0 E.	...	14 15 E.
N.N.E.	34 35 E.	11 0 E.	31 20 E.	...	...	...	28 45 E.	...	18 0 E.
N.E. by N.	39 25 E.	20 0 E.	33 0 E.	...	...	...	30 15 E.	...	20 40 E.
N.E.	41 45 E.	* 26 30 E.	32 20 E.	...	...	...	29 50 E.	...	21 30 E.
N.E. by E.	41 45 E.	30 30 E.	30 30 E.	...	...	...	27 30 E.	...	21 30 E.
E.N.E.	40 0 E.	32 30 E.	25 45 E.	...	...	...	23 30 E.	...	20 30 E.
E. by N.	36 45 E.	33 0 E.	19 45 E.	...	...	...	17 45 E.	...	18 30 E.
East	32 10 E.	31 30 E.	13 0 E.	...	...	...	11 30 E.	...	15 40 E.
E. by S.	26 20 E.	30 0 E.	4 45 E.	...	...	...	4 50 E.	...	12 20 E.
E.S.E.	20 0 E.	27 30 E.	2 0 W.	...	...	...	1 20 W.	...	8 50 E.
S.E. by E.	13 35 E.	24 0 E.	8 20 W.	...	...	...	7 10 W.	...	5 20 E.
S.E.	7 15 E.	20 30 E.	14 0 W.	...	...	...	11 50 W.	...	2 0 E.
S.E. by S.	1 0 E.	16 30 E.	18 30 W.	...	...	...	15 40 W.	...	* 1 15 W.
S.S.E.	5 20 W.	12 0 E.	21 30 W.	...	...	...	18 10 W.	...	4 20 W.
S. by E.	11 35 W.	7 30 E.	23 30 W.	...	...	...	19 30 W.	...	7 10 W.
South	17 35 W.	2 40 E.	24 0 W.	20 45 W.	...	...	20 0 W.	...	9 30 W.
S. by W.	23 10 W.	2 0 W.	23 50 W.	21 0 W.	...	...	20 0 W.	...	11 15 W.
S.S.W.	27 30 W.	7 0 W.	23 20 W.	20 30 W.	...	...	19 30 W.	...	12 40 W.
S.W. by S.	30 50 W.	11 40 W.	22 30 W.	19 50 W.	...	...	18 30 W.	...	13 40 W.
S.W.	32 45 W.	16 30 W.	20 30 W.	18 35 W.	...	...	16 55 W.	...	14 20 W.
S.W. by W.	33 50 W.	20 30 W.	19 0 W.	...	...	...	15 0 W.	...	14 50 W.
W.S.W.	33 45 W.	24 0 W.	17 30 W.	...	...	...	13 20 W.	...	15 0 W.
W. by S.	32 50 W.	27 0 W.	15 20 W.	...	...	...	10 50 W.	...	15 30 W.
West	31 20 W.	29 0 W.	13 40 W.	...	...	...	8 30 W.	5 40 W.	15 30 W.
W. by N.	29 0 W.	30 0 W.	11 40 W.	...	8 40 W.	7 10 W.	6 35 W.	2 20 W.	15 0 W.
W.N.W.	25 50 W.	30 0 W.	9 20 W.	...	6 25 W.	4 15 W.	2 30 W.	5 40 W.	13 45 W.
N.W. by W.	21 50 W.	30 0 W.	6 40 W.	...	...	...	0 0	2 20 W.	11 40 W.
N.W.	16 0 W.	28 0 W.	3 45 W.	...	...	...	3 30 E.	1 30 E.	9 0 W.
N.W. by N.	9 25 W.	25 0 W.	0 0	...	...	...	6 50 E.	5 55 E.	5 0 W.
N.N.W.	1 40 W.	19 30 W.	5 30 E.	...	...	...	10 45 E.	10 20 E.	0 30 W.
N. by W.	7 15 E.	12 0 W.	12 30 E.	...	...	...	15 15 E.	14 35 E.	4 30 E.

* In each Table the small figures indicate interpolations.

Magnetic Co-efficients.

	° ′	Approximate. ° ′	Approximate. ° ′	Approximate. ° ′	Approximate. ° ′	Approximate. ° ′	Approximate. ° ′	Approximate. ° ′	Approximate. ° ′
A	+ 0 3	...	− 1 40	...	...	...	...	...	− 0 6
B	+ 31 55	+ 30 15	+ 13 34	...	+ 10 30	+ 9 10	+ 10 0	+ 5 40	+ 5 53
C	+ 17 47	− 3 40	+ 22 41	+ 20 45	...	...	+ 20 10	+ 17 40	+ 9 30
D	+ 4 31	+ 4 23	+ 7 55	...	...	...	+ 5 5	...	+ 3 15
E	− 0 9	...	− 0 12	...	...	...	...	...	− 0 8

An inspection of the values obtained by the vibration experiments at the foremost bridge station, for ship's force to the bow or headward, at once indicates the presence of a fore-and-aft inductive force varying with the direction of the ship's head. Comparing the value when ship's head is S. 88° 30′ W., when this induction will nearly vanish, with the other observations, and taking a mean of the equations which they afford, a capacity for fore-and-aft induction equal to 0·104 of earth's horizontal force is obtained, the ship's headward polar force being 0·477. Using these co-efficients it will be seen that the calculated values correspond sufficiently close with the observed values.

			Calculated Values.	Observed Values.
0·104 cos	33 0	+ 0·477 = −0·087 + 0·477 =	0·390	0·406
0·104 cos	109 20	+ 0·477 = 0·034 + 0·477 =	0·511	0·508
0·104 cos	117 0	+ 0·477 = 0·047 + 0·477 =	0·524	0·532
0·104 cos	152 0	+ 0·477 = 0·092 + 0·477 =	0·569	0·553
0·104 cos	268 0	+ 0·477 = 0·003 + 0·477 =	0·480	0·477

The values for ship's force to starboard show a much larger capacity in the ship for transverse induction. By equating the second and third observations with the last, as those best adapted for the purpose, and taking a mean, the following are obtained for ship's capacity for transverse induction and polar attraction to starboard, namely, 0·218 and 0·231 respectively of earth's horizontal force.

The calculated and observed values of ship's force to starboard will stand thus:—

			Calculated Values.	Observed Values.
0·218 sin	33 0	+ 0·231 = 0·119 + 0·231 =	0·350	0·357
0·218 sin	109 20	+ 0·231 = 0·206 + 0·231 =	0·437	0·460
0·218 sin	117 0	+ 0·231 = 0·194 + 0·231 =	0·425	0·403
0·218 sin	152 0	+ 0·231 = 0·102 + 0·231 =	0·333	0·330
0·218 sin	268 0	+ 0·231 = −0·218 + 0·231 =	0·013	0·013

The fore-and-aft induction represents a − D = 0·104 sin 45° = 0·104 × 0·701 = 0·0729 = 4°·11′.

The transverse induction represents a + D = 0·218 sin 45° = 218 × 0·701 = 0·1528 = 8°·47′.

The sum of these, or − D 4°·11′ + D 8°·47′ = + D 4·31, the same value exactly as was previously obtained from the table of deviations, or taking (0·218 − 0·104) × sin 45° as the more correct expression we obtain 0·114 × 0·701 = 0·0799 = 4°·35′, a remarkably close approximation to the mean D obtained from the observed deviations.

It should be observed that both of these induced magnetisms tend to decrease the directive power of the compass needle, and that on the four point courses it amounts to so much as 0·226, or nearly one-fourth of the earth's horizontal force; a decided example of the necessity for correcting quadrantal deviation, and that by soft iron rather than by an adjacent compass, which would tend to still further decrease the directive power of the needles.

The observations made at the platform station of the dipping needle compass do not afford any very satisfactory data for estimating the effect of the fore-and-aft inductive magnetism of the ship, but they are sufficient, it is thought, to show that any change in the observed magnetism from this cause must be very small. They afford better evidence of a continued decrease in the attraction towards the bow.

Thus one observation at Deptford gives the headward force, or B, as			=	0·249
The mean of five observations at Purfleet gives			-	0·228
„	six	„ the Nore „	-	0·233
„	six	„ Portland „	-	0·158
„	three	„ Holyhead „	-	0·149

For the transverse magnetism at this station, the Purfleet observations give the following equations:—

Polar magnetism, minus (capacity for induced magnetism multiplied by sin 52° 54′) = 0·150.

Polar magnetism, minus (capacity for induced magnetism multiplied by sin 22° 30′) = 0·250.

Polar magnetism, plus (capacity for induced magnetism multiplied by sin 13° 0′) = 0·371.

The first and second, the first and third, and the second and third of these equations give 0·241, 0·216, and 0·199 respectively as the capacity for transverse induction, or a mean value of 0·219, which multiplied by sin 45° gives 0·1533 = 8° 49′ as the co-efficient for quadrantal deviation; the deviation table for the same place giving + D 7° 55′.

Treating the most distant of the observations at the Nore in the same way, a mean value of 0·201 is obtained, which gives 8° 5′ for the quadrantal deviation. The two most distant of the Portland observations gives 0·173 as the capacity, and 6° 57′ for the quadrantal deviation; and the Holyhead observations in like manner give 0·164 and 6° 36′.

It can scarcely be admitted that the capacity for transverse induction has sensibly decreased, nor that the difference is due entirely to instrumental errors and errors of observation, but rather that when the ship quietly swings at anchor through a few points of the compass, the change in the horizontal induction has not the time which is required nor the incitement which is necessary for full development. These experiments on board the "Great Eastern," in conjunction with a very large number of observations made on board other ships, induce in the writer a conviction that careful

experiment would show that co-efficient D may, in some ships, be made to vary fully 25 per cent., by adopting different methods of swinging ship.*

Using the values for transverse induction obtained above to ascertain the ship's polar transverse magnetism at each place, we obtain,—

		°	′
At Deptford	C = 0·3849 =	22	38
At Purfleet	C = 0·3271 =	19	42
At the Nore	C = 0·3140 =	18	18
At Portland	C = 0·2706 =	15	42
At Holyhead	C = 0·2940 =	17	6

In the preceding tables the dip at the first four stations has been taken as 68° 30′, and at Holyhead as 70° 10′. The larger dip at Holyhead will, to some extent, account for the larger C observed at this place; in some measure it will also be due to the small value used for D.

W. W. R.

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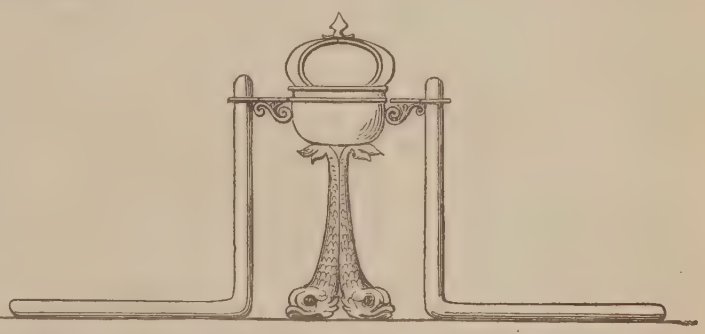
* A modification of the present mode of compensating quadrantal deviation, as described below, might, it is thought, be advantageously introduced to cure the fluctuations here referred to, as well as those in the transverse sub-permanent magnetism which are known to be constantly taking place. Some instances of change in a ship's transverse magnetism are quoted in the report. The following occurred recently. A ship was swung after lying for some time with her head to the eastward; on testing her transverse magnetism the following day, after lying in the meantime with her head to the westward, it was found to have changed more than two degrees. In cases in which ships sail or steam for some days on opposite courses the change must be much greater; for instances, see the logs appended to this report.

On each side of the compass, at a distance to be found by trial, and depending on the size of the bars of iron employed, place a bar, bent at right angles, as shown in the sketch; the horizontal part of the bar might be let into the deck, or be placed entirely below it, and should be of a length to suit the ascertained magnetism of the ship. By care in selecting the iron, and in making use of any susceptibility it might have for retaining magnetism in one direction, nearly the whole of the transverse magnetism of the ship might be compensated in this manner.



An arrangement of bars of iron of this kind would have the following recommendations; it would compensate quadrantal deviation; it would compensate a considerable part, if not all, of the changes in the sub-permanent transverse magnetism; it would correct a large part of the error from heeling; and, in conjunction with the vertical bar, already introduced for compensating the ship's fore-and-aft changing magnetism, it would considerably increase the directive power of the compass.

W. W. R.

APPENDIX O.

Letters from Mr. Thomas Bennett, Compass Adjuster, Cork, on the Magnetism of Iron Ships.

Gentlemen, Cork, April 1857.

Being for the last few years engaged in the correction of compasses in iron ships at this port, and most of them having been built in a north and south direction, I have had frequent opportunities of observing the peculiarities of their magnetism, consequent (as it seems to me) on their being built in this position. I shall therefore proceed, with your permission, to give some account of my observations and views on the subject.

The river here runs nearly east and west past the building yards, which are on the nothern side of it, so that all the ships that have been built here were laid down nearly in the line of the magnetic meridian, and all of them, till within about the last two years, with their heads to the north, as it was thought most convenient to launch them "stern on."

I perceived about this time that all the ships which had been built here exhibited southern polarity aft and northern forward; that it to say, they had assumed a local polarity in accordance with the horizontal direction of terrestial magnetism, in reference to the position in which they had been built; and I thought it likely that the magnetism was induced in a vertical direction also, in accordance with the magnetic dip; and having tried a mast compass in one of them, I found that it was more correct on the foremast, even when placed low down, than on the mizenmast in a very much higher position. I may remark that I always found on adjusting ships built here, that they required the correcting magnets to be much nearer to the compass, more powerful, or more numerous than was ever necessary for the correction of ships built in other places; and I thought that if they could be laid down in a position the reverse of the usual one here (that is with the stern instead of the head to the North), that the polar direction being then induced to follow the dip, its intensity would be below and much farther from the after compass. Accordingly I induced Mr. Robinson, (a private builder here) to lay down a steam ship, which he was about to build, with her head to the South, so that she was launched "stem on," and I was greatly pleased to find that she had northern polarity aft and southern forwards, and that when her head was E. and W., a compass placed aft had much less error than in any former ship, and much less than in the forward part of this ship; and consequently it required less magnets to adjust her. I found that the horizontal direction of her magnetism nearly coincided with the line of her keel, and the intensity was low in the after part of the ship, and high forward, so that it tended towards the direction of the dip, but was not nearly so vertical.

I tried the compass in several positions on board her, both before she was launched and afterwards, and found in all cases that the compass aft was much less affected by local attraction than when placed forward, and less on the bridge than at either end. In order to test the relative intensities of the ship's magnetism while on the stocks, I placed (before bringing the compass on board to experiment with) a deflecting magnet below the compass, and attached to it, which produced a deviation of 45°, so that the compass needle when brought on board should be presented at that angle to the direction of the ship's polarity. I also tried her errors a couple of days after she was launched, and two or three times at intervals of a week each afterwards while she lay at the Dock Quay (nearly E. and W.), and I found that her after compass was less in error two days after she was launched than a week after; so that I think the line of her intensity became more horizontal; at any rate there was a very decided change aft, during the first week or ten days, but none that I could perceive afterwards.

As regards the mode of correcting iron ships generally, I may remark that I have found the correction of the E. and W. deviation by fore-and-aft magnets placed parallel to each other, and on *each* side of the compass, is seldom very satisfactory, as I think they produce a magnetic error intermediate between the cardinal points, and being magnetic cannot be absorbed by the adjustment for non-polar or quadrantal deviation; so that I think the original directions of Professor Airy for placing the magnet or magnets on *one side* of the centre of the compass for each correction of it will be found more satisfactory in practice than placing them on opposite sides, as is frequently done.

I have lately been rather pleased with a correction I made by placing an auxiliary magnet directly under the centre of the compass and coincident with the direction of the ship's keel, of sufficient power to correct a good deal but not all of the error (with her head E. and W.), and then perfecting that correction by another magnet placed parallel to the first, but at a considerable distance at one side of it; however, I dare say this mode of making the correction would only be necessary when the ship's polarity is nearly in the line of her keel, or when the compass is placed close to a capstan, the spindle of which may happen to have sufficient vertical magnetism to affect the compass.

In correcting ships I have found that though I had generally no difficulty in making a perfect correction of the bridge compass, I have almost always found a small error in the after compass on reversion, which I might transpose, but could not get rid of; and on thinking the matter over I have concluded that it was due to the nearer proximity of one pole of the ship's magnetism to the after compass; and if so, that it might be compensated for by placing the neutral points of the correcting magnets a little more forward than the centre of the compass; at any rate, I hope soon to have an opportunity of testing the matter practically. I may just add, that I have not always found the neutral point of a magnetic bar to be equidistant from each end, and have therefore always thought it better to ascertain the neutral point of each magnet before applying it for correction. In con-

clusion I beg to say that if I can afford any further information on the subject, I shall be most happy to do so.

And am, Gentlemen,
Your most obedient,
The Liverpool Compass Committee. (Signed) Thos. Bennett.

My dear Sir, Cork, 14 December 1858.

It seems so long a time since I last wrote to you, that I hardly know how to begin now; besides, in truth, "the Report," which you were kind enough to send me in the early part of the year, is so correct, and so comprehensive on everything connected with the magnetism of iron ships, that it does not seem to leave room for much more upon the subject.

I have the Report now before me, and shall take the liberty, as I turn over the pages of it, to remark on anything that may appear to me unusual; or offer any suggestion that my own experience of the matter may dictate. And am sure that you will be more kind than critical regarding my mode of doing so.

I perceive that you speak of a "dumb card" for ascertaining the position of a ship's head at any moment; and though I have never seen one, I have no doubt it is exactly similar in principle to an instrument which I contrived for my own use some years since, and which I have been using very satisfactorily ever since; in fact, as the adjustment of ships at Cork has to be made in a tideway, and without any buoys laid down for the purpose, it would be impossible to make a correct adjustment without something of the kind. I dare say my instrument is more complete than anything that could be applied in, or on, an ordinary compass. I use it on a tripod near the binnacle, and it is fitted with clamp and tangent screw, divided glass reflectors for back observation, and transparent glass sights graduated to hundredths of a point for direct view. But no matter how simply such an instrument may be constructed, it is infinitely preferable for ascertaining the errors of a ship to any mode of signalling or sighting from the shore.

I have had only two or three opportunities since I last wrote to you of ascertaining the effect of a ship's position while building on the distribution of her magnetism; but these have quite tended to confirm my former views, and quite agree with your observations in the Report. As regards the permanence of a ship's magnetism, I have from time to time had to readjust steam ships after undergoing repairs, and have generally been surprised to find how little their magnetism had altered in direction, or even in amount, from the time of their former adjustment; in fact I am inclined to think that *that* part of a ship's magnetism which causes the greatest errors of the compass is much more permanent than most people think. I doubt even if it alters much by concussion (at least for any considerable time). I have in fact found more change in ships after lying up for a long time than I ever did in ships kept constantly at work under any circumstances.

I had an opportunity, too, of testing one steamer after a severe collision, and could not perceive any change in her horizontal adjustment, though a vertical magnet in the pillar of the binnacle with which I had originally corrected her errors for heeling was obliged to be lowered, after which her adjustment seemed again perfect; but strange to say, after she made a few short voyages I was obliged to replace it in its original position.

I have sometimes found considerable change in the bridge compass of a ship after repairs, but have always been able to trace it to the substitution of new boilers, or to some decided change in the iron work near the binnacle. I think it right to say that the greater number of the ships I have had to deal with are built in a N. and S. direction, and it may be that on that account their magnetism is more permanent than that of ships built in a different position, and I am inclined to think that it is so; but I expect in future to have opportunities of testing ships built in an E. and W. direction also, and shall then be able to speak more positively on the subject.

The great difficulty which I have to contend with in arriving at any conclusion as regards the magnetism of ships is caused by the great hurry in which they are got ready for sea. Every one here connected with them is anxious to oblige me as much as they possibly can, but really the urgency of sending them off at the last moment overrules all other considerations, so that they are only anxious to get the adjustment made as quickly as possible, and say and do all they can to hurry me with it. Even for a good while before the ships are ready for sea, there are generally such a number of workmen in every part of them that it is almost impossible to get an opportunity of making satisfactory experiments.

As regards tables of errors, I think they are always necessary, and should be carefully made out and supplied after adjustment. I have had some years experience in the adjustment of iron ships, and I think I never knew an instance in which all the errors were neutralized; and I have met some in which the curves exhibited sudden and singular flexures which it would be difficult to account for, and I believe quite impossible to imitate artificially on a small scale. So that I think whether the quadrantal adjustment is applied or not the errors ought in all cases to be carefully ascertained, and, if possible, on every point of the compass, not by symmetry or analogy of opposite errors, but by actual observation of all.

I quite agree with the remarks in the Report as to the utility of "the error curves" for exhibiting the nature and characteristics both of quadrantal and polar errors, as well as the value of accustoming the eye to their combinations; and I think the long diagrams, as at page 67, will be more useful for that purpose, because more easily understood, than those at page 66; at least I must confess the latter puzzled me a little at first.

With regard to the adjustment for quadrantal errors, I know how important a thing it would be, for many reasons, if it could be accurately and judiciously applied, but am sorry to say that my

own experience is rather against it in many—I am afraid I must say in most—cases where the mass of the ship's iron is very great, or very near the compass.

The principal objection to it is, that it renders the compass more sluggish than it otherwise would be, particularly on E. and W. courses, and often to an extent materially to interfere with the integrity of the compass, even in these latitudes, where the terrestrial directive force is so considerable; besides, the accuracy of the adjustment depends on the uniformity of the errors in opposite quadrants, and I think you will find that in iron ships they are not always uniform.

I might also urge one or two other objections to the practical application of soft iron correctors, but really this paper has already extended to such a length that I must now try and finish it as briefly as possible.

I should like to mention one instance of unusual magnetic force that came under my own observation lately. It was that of a new iron screw steamer which was built for whaling purposes, and was fitted aft with a large iron trunkway or shaft, for the purpose of raising or lowering the propeller through; the upper end of this propeller shaft possessed intense southern polarity, and as the skylight on which the binnacle and compass was placed was very close to it, its effect upon the compass exceeded anything of the kind in my experience. When the ship's head was true magnetic N. the compass indicated S.W. by W., when the ship's head was W. the compass was S.S.W. A dipping needle which on shore dipped to 68° when placed in the position of the compass became vertical. I then removed it on shore, and counteracted its dip by a sliding weight, so as to bring it to 0; and when again placed on the skylight it dipped, notwithstanding the weight, to 25°. A horizontal needle, too, which on shore made 14 vibrations per minute, when placed on the skylight made only at the rate of $5\frac{1}{2}$. I think in such a ship you would hardly recommend chain boxes. No doubt in some iron ships they may be advantageously used, and in all wooden ships with much horizontal iron affecting the compass; but I think I am correct in saying that there are many instances of iron ships where they would do more harm than good.

Whenever quadrantal correctors are used I think they should be carefully tested beforehand, to make sure that they do not possess polarity. In experimenting some time since, I tested cast-iron cylinders, boxes of cast-iron borings, wrought-iron turnings, wrought-iron punchings, and chain, and found them all more or less magnetic, so that when applied in one way they corrected or tended to correct the error, but when reversed end for end they failed to do so; in fact I believe, after all, that well softened iron chain is as good as anything. But whatever may be used as correctors, they should be as large and as far from the compass as circumstances will permit. A small compensator near the compass does not produce the same effect as a larger one at a greater distance. Besides, the compass has sometimes to be changed at sea for another one; and though the extreme fittings of the two compasses may be the same size, the bowls or cards may not; for instance, a heavy floating compass with comparatively a small card and short needles is sometimes removed in fine weather to substitute a quicker compass with single bowl and larger card; in this case the nearer the compensators the greater the error produced by the change.

But my principal objection to the close proximity of the compensators is, that they do not then correct accurately at all; that they do not produce their maximum effect where the maximum error generally is (when the ship is on the quarterly courses), but when the ship's head is about a point nearer to E. or W.; and that when the ship's head is about E. or W. the small compensators very near the compass produce a very serious obstruction to its free motion.

I shall only add, in conclusion, that I have also satisfied myself by repeated trials that a polar adjustment is never so uniform when made by weak magnets near the compass as it might be by stronger ones further off. I have lately read of adjustments made by small magnets, "end on" to the compass, and have in consequence tried a good many experiments in this way, but could not possibly produce a uniform correction; and I am quite sure that where large errors had to be compensated it would be quite impossible to do it accurately in this way.

I am afraid you will think this letter unreasonably long, and indeed it is very much longer than I at first intended it should be; but I have really found it impossible to make myself intelligible in less words, and have tried to exclude everything that had not some practical bearing on the subject. If you think anything in this letter worth the consideration of "the Compass Committee," you will be good enough to submit it to them; but in any case I should be glad of a few lines, at your earliest convenience, in reference to it, particularly as regards the practical application of quadrantal adjustment; I know you have given considerable attention to the subject, and are very likely to have arrived at a correct conclusion about it. If I find that your opinion coincides with mine, I shall feel fortified in the matter; but if, on the contrary, you have arrived at different results, I shall then carefully reconsider the whole subject again, and make some experiments for the purpose of satisfying myself about it.

I am, dear Sir,
Yours very truly,
(Signed) THOS. BENNETT.

Mr. W. W. Rundell.

While the foregoing was passing through the press, the following additional letter was received from Mr. Bennett:—

My dear Sir, 124, Patrick Street, Cork, 15 August 1861.

In a letter I wrote to you some time since, when speaking of the quadrantal errors of iron ships, I stated that I thought the soft iron adjustment for those errors rendered the compass more sluggish than it otherwise would be. Since then I have had repeated opportunities of testing the matter, and think it right to say, that I am now much more favourably disposed towards the soft iron correctors than at that time; in fact, I think the sluggishness of the compass referred to on that occasion was due to the proximity of a large mass of vertical iron, from the influence of which of course the quadrantal errors could not relieve it; indeed I do not know anything connected with the errors of iron ships so difficult to deal satisfactorily with as the proximity of vertical iron to the compass; and this is peculiarly the case in ships built head to North.

I have had more opportunities of experimenting in such ships than any others, and I am satisfied that after being a short time afloat and in motion, particularly under steam, they exhibit more change in their magnetic intensity than those built in any other direction; their errors from heeling, too, are very considerable, so that an upright centre magnet cannot well be dispensed with in such ships.

I do not think that ships built head to South would be liable to the same objections, certainly not to the same extent, though even they might not be found to answer so well in the southern hemisphere; and this matter, as to where a ship was likely to trade to, should, I think, be rather considered by anyone about to determine the best direction for laying down a vessel's keel, than as to whether she was to be a sailing ship or a steamer, as I do not think the machinery in an *iron* ship exercises much influence on the after compass, compared with that of a much smaller amount of vertical iron near it, and the magnetism of which can scarcely fail to be altered by a change of hemisphere. On the whole, if I were to offer an opinion on the subject, I should be disposed to recommend an East and West direction as the best generally for laying down a ship's keel. I have myself adjusted some new ships built head to West, and found the compensation easy, and the residual errors small and uniform.

I have latterly had reason to think that some ships experience a temporary change of magnetism whenever their machinery has been a few hours in motion, and that the errors so induced disappear again after a similar period of rest; so that though the compass might exhibit little or no error on a particular course at the commencement of a voyage, it would be found considerably in error on the same course after a day's steaming. I have had a couple of reports of such cases lately, and one at least of them I think quite reliable; so much so, that I intend to take an early opportunity of ascertaining at sea whether it is so, and will then communicate the result.

And am, my dear Sir,
Yours very truly,

Mr. W. W. Rundell. (Signed) Thos. Bennett.

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MERCHANT SEAMEN'S FUND.

ACCOUNT of the RECEIPT and EXPENDITURE under the SEAMEN'S FUND WINDING-UP ACT, from 1st January to 31st December 1861; with an ACCOUNT of the Sums Received and Paid for the Wages and Effects of deceased Seamen in the Year 1861.

(*Pursuant to Acts* 14 *&* 15 *Vict. c.* 102, *s.* 59, *and* 17 *&* 18 *Vict. c.* 104, *s.* 202.)

Ordered, by The House of Commons, *to be Printed*,
6 *May* 1862.

AN ACCOUNT of the RECEIPT and EXPENDITURE under the SEAM

RECEIPTS.

	£.	s.
To Balance in hand on 1st January 1861, as shown in the preceding Account, to 31st December 1860 -	36,745	14
To Amount received for Voluntary Contributions from Masters and Seamen - - - - - -	2,697	10
To Amount of the Vote of Parliament for the year ending 31st March 1862 - - - - -	58,700	-
£.	98,143	

WINDING-UP ACT, from 1st January to 31st December 1861.

PAYMENTS.	£. s. d.	£. s. d.
ount paid for Pensions, including the sum of 523 *l.* 18 *s.* 9 *d.*, granted by of Annuity to the late Officers of the Trustees, whose offices were abolished	58,073 12 4	
ount paid for Commutation of Pensions	602 1 –	
		58,675 13 4
ount paid for Salaries and Charges of Management		40 – –
ount paid into Her Majesty's Exchequer, being for amount received e Voluntary Contributions in the year 1860, from Masters and Seamen		3,018 1 10
ance in hand 31st December 1861		36,409 10 3
PARTICULARS OF THE ABOVE BALANCE.		
the hands of Her Majesty's Paymaster-General	44,016 13 11	
due from the Mercantile Marine Fund for Voluntary Contributions	544 10 11	
£.	44,561 4 10	
alance owing to the War Department for Amount paid for Pensions t December 1861	8,151 14 7	
£.	36,409 10 3	98,143 5 5

d of Trade, 2 May 1862.

James Booth.

H. R. Williams,
Accountant.

COMPARATIVE STATEMENT of the Number and Amount of the whole of the Pensions, and of Class of Pensions, Granted in the Years 1860 and 1861.

Rate of Pension.	CLASS OF PENSIONERS.	1860.		1861.	
		Number.	Amount.	Number.	Amc
£. s. d.			£. s. d.		£.
6 16 –	Masters	214	1,455 4 –	168	1,142
3 8 –	Seamen	162	550 16 –	144	489
4 8 –	Widows of Masters	158	695 4 –	142	624
2 4 –	Widows of Seamen	179	393 16 –	177	389
2 4 –	Children of Masters	140	308 – –	103	226
1 2 –	Children of Seamen	60	66 – –	76	83
		913	3,469 – –	810	2,956

COMPARATIVE STATEMENT of the Number and Amount of the whole of the Pensions, and of Class of Pensions, Expired in the Years 1860 and 1861.

CLASS OF PENSIONERS.	1860.		1861.	
	Number.	Amount.	Number.	Amou
		£. s. d.		£.
Masters	144	841 19 –	152	928
Seamen	339	1,027 1 10	294	899
Widows of Masters	228	861 2 –	164	600
Widows of Seamen	507	1,035 – 4	353	717
Children of Masters	392	761 7 8	282	547
Children of Seamen	619	688 3 6	498	532
	2,229	5,214 14 4	1,743	4,226

COMPARATIVE STATEMENT of the Number of Pensioners upon the Fund on the 31st Decemb and 31st December 1861; distinguishing between Men, Women, and Children, and between different Pensions, and the Total Amount of Pensions of each Class.

CLASS OF PENSIONERS.	1860.		1861.	
	Number.	Amount.	Number.	Amc
		£. s. d.		£.
Masters	2,015	12,441 14 2	2,044	12,740
Seamen	3,574	11,701 13 6	3,454	11,386
Widows of Masters	3,471	12,584 11 6	3,499	12,833
Widows of Seamen	6,974	14,481 – 1	6,908	14,430
Children of Masters	1,519	2,860 5 6	1,379	2,619
Children of Seamen	2,537	2,816 1 8	2,167	2,417
	20,090	56,885 6 5	19,451	56,426

Note.—There is a discrepancy in the Comparative Statement of the Number and Amount of Pensions upo in 1860 and 1861, owing to an omission in 1860 of the Pensioners in the Ayr District in the returns sent t of Trade.

AN ACCOUNT of the PROPERTY and MONIES held by the TRUSTEES of the MERCHANT SEAMEN'S FUND, at the under-mentioned PORTS, for Special Purposes distinct from the General Purposes of the FUND, and the Receipt and Expenditure for the same, for the Year 1861.

Sunderland - - - -	Freehold Ground in Assembly Garth, whereon are built several Houses and a Seamen's Hall; also 13 Houses in Trafalgar-square, Sunderland, subject to a ground-rent of 5 *l.* per annum. Cash received for Rent of 12 *s.* per annum from the Inmates, and sundry other Receipts (including last year's balance of 180 *l.* 19 *s.*), 300 *l.* 19 *s.* 3 *d.* Cash paid for Ground-rent, Insurance, Repairs, Water-rate, and Sundries, 77 *l.* 3 *s.* 2 *d.* Leaving a Balance in the hands of the Trustees of 223 *l.* 16 *s.* 1 *d.*
Rye - - - - -	Three Leasehold Cottages, subject to a Ground-rent of 13 *s.* 4 *d.* per annum. Cash received for Rent of 40 *s.* per annum from the Inmates (including last year's balance of 7 *l.* 17 *s.*), 13 *l.* 17 *s.* Cash paid for Repairs, 2 *l.* 10 *s.* Balance in the hands of the Trustees, 11 *l.* 7 *s.*
Boston - - - - -	Nine Almshouses. Cash received for Rent from Inmates (including 1 *l.* 1 *s.* for last year's Balance), 9 *l.* 1 *s.* Cash paid for Insurance, Water-rate, Repairs, 6 *l.* 13 *s.* 7 *d.* Balance in the hands of the Trustees, 2 *l.* 7 *s.* 5 *d.*
Scarborough - - - -	Sixty-seven Dwellings, or Buildings, called the Seamen's Hospital and Trinity House. Bequest of 837 *l.*, 3 per Cent. Annuities. Cash received for Dividends, 25 *l.* 2 *s.* 8 *d.* Cash paid to Inmates of the Houses, 16 *l.* 16 *s.*; Repairs, Insurance, and Expenses, 17 *l.* 15 *s.* 2 *d.*; Balance due to the Trustees last year, 48 *l.* 13 *s.* 6 *d.*; together, 83 *l.* 4 *s.* 8 *d.* Balance due to the Trustees, 58 *l.* 2 *s.*
Whitby - - - - -	Fifty Tenements, called Seamen's Hospital Houses. Bequest of 300 *l.*, 3 per Cent. Consols. Also, 130 *l.* 1 *s.* 2 *d.*, 3 per Cent. Annuities. Cash received for Rent and Dividends, including 3 *l.* 18 *s.* last year's balance, 21 *l.* 8 *s.* 11 *d.* Cash paid, Insurance, Repairs, Coals distributed to Inmates, and Sundries, 20 *l.* 0 *s.* 6 *d.* Balance in the hands of the Trustees, 1 *l.* 8 *s.* 5 *d.*
Liverpool - - - -	1,600 *l.* Bonds of the Corporation of the Town of Liverpool received from the Committee of the Nelson Fund. Cash received for Interest on Bonds, including 35 *l.* 4 *s.* 1 *d.* for last year's Balance, 104 *l.* 5 *s.* 11 *d.* Cash paid to 15 Masters and 12 Widows, 75 *l.* 0 *s.* 2 *d.* Balance in the hands of the Trustees, 29 *l.* 5 *s.* 9 *d.*

WAGES AND EFFECTS OF DECEASED SEAMEN.

ACCOUNT of the SUMS received from the 1st January to the 31st December 1861, for the WAGES and EFFECTS of DECEASED SEAMEN, and of the PAYMENTS made for the same Period.

	£.	s.	d.	£.	s.	d.
Balance in hand on 31st December 1860, as shown in the preceding Account -				62,578	16	4
Amount received in 1861 from the Masters of Vessels, and from the Collectors of Customs in the Colonies, and from Her Majesty's Consuls abroad, for Wages and Effects of 3,774 deceased Seamen - - - - - - -				26,126	2	–
Interest received on 50,000 *l.* Exchequer Bills, 1,710 *l.* 9 *s.*, less Premium and Commission on Purchase, 379 *l.* 3 *s.* 2 *d.* - - - - - - - -				1,331	5	10
				90,036	4	2
Amount paid in 1861 to the Relatives and Representatives of 2,123 deceased Seamen - - - - - - -	17,521	16	6			
Amount unclaimed received prior to 1 January 1855, paid into Her Majesty's Exchequer - - - - - - -	5,380	17	4	22,902	13	10
BALANCE unclaimed on 31st December 1861 - - £.				67,133	10	4

Particulars of Balance, viz.:	£.	s.	d.
For Cash in the hands of Her Majesty's Paymaster General -	15,806	10	3
For Exchequer Bills - - - - - - - - -	50,000	–	–
For Advance, to be repaid from the Vote for the Relief of Distressed Seamen - - - - - - - - -	594	18	7
For Advance, to be repaid from the Mercantile Marine Fund -	732	1	6
£.	67,133	10	4

Board of Trade,
2 May 1862.

H. R. Williams,
Accountant.

James Booth.

ABSTRACT

OF

THE ACCOUNTS

OF THE

MERSEY DOCKS AND HARBOUR BOARD,

From the 25th June 1860 to the 24th June 1861.

The Account in detail, as laid before the House, is deposited in the Library, and is open to inspection by Members.

(*PRESENTED PURSUANT TO ACT OF PARLIAMENT.*)

Ordered, by The House of Commons, *to be Printed,*
16 *May* 1862.

Balance Sheet for the Year ending 24 June 1861.

Dr.

CAPITAL ACCOUNT.

		£. s. d.	£.
1860: 25 June	To Balance in the hands of A. Heywood, Sons & Co., Bankers	57,348 18 4	
	Ditto of the Treasurer	64 13 –	
			57,413
	Excess of Conservancy Expenditure as per Capital Account last year, transferred to Conservancy Account of this year		11,778
1861: 24 June	Stock of Materials on hand as per last Account, viz.—Liverpool	£. 50,489 19 2	
	Birkenhead	53,009 5 6	
			103,499
	Cash received on Bonds for year ending 24 June 1861	2,564,938 17 5	
	Less, expired Loans renewed £. 1,249,368 13 1		
	Ditto paid off 360,910 7 7		
		1,610,279 – 8	
			954,659
	Cash received from "The Upper Mersey Dues Trustees," on account of the Consideration Money payable for the Transfer, under the Act of Parliament, to them of the Upper Mersey Dues		100,000
	Cash received from the Corporation—Repairs at Trafford Dock		7
	Amount at Credit of Insurance Account	£. 17,809 15 10	
	Deduct, Cost of Repairs for Damage done by Fire at Stanley Dock Warehouses on 1st August 1860	2,415 13 9	
		15,394 2 1	
	Less, Amount for previous years	14,718 14 5	
			67
	Interest payable to the Corporation, as per Revenue Account, at foot		36,14
	Surplus of General Receipts, as per Revenue Account, at foot, of which the sum of 100,000 *l.* is applied as a "Sinking Fund" for the year ending 24th June 1861, under the 4th section of "The Mersey Docks (Money) Act, 1859"		167,59

BOND DEBT ACCOUNT.

		£. s. d.
Due on the 24th June 1860		7,593,358 19 4
Received on Bond this year	£. 2,564,938 17 5	
Of which the Renewals of expired Loans amount to £. 1,249,368 13 1		
Amount of Bonds paid off 360,910 7 7		
	1,610,279 – 8	
		954,659 16 9
Present Bond Debt £.		8,548,018 16 1

	£.	1,431,84

REVENUE ACCOUNT.

		£. s. d.	£.
1861: 24 June	To Cash received for Dock Tonnage Rates, viz.:—Foreign Sailing Ships	164,395 7 3	
	Foreign Steamers	31,184 5 10	
	Coastwise Sailing Ships	7,738 3 2	
	Coastwise Steamers	19,197 9 3	
			222,51
	Cash received for Dock Rates on Goods:—Foreign Inwards	182,115 7 3	
	Foreign Outwards	39,787 3 5	
			221,90
	Cash received for Town Dues on Goods:—Foreign Inwards	96,645 7 9	
	Foreign Outwards	43,503 18 4	
	Coastwise Inwards	10,501 9 9	
	Coastwise Outwards	15,937 10 5	
			166,58
	Cash received for Anchorage Dues		9
	Ditto Graving Dock Rates		25,2
	Ditto Graving Block Rates		2,0
	Ditto Rates on River Flats—Birkenhead		
	Ditto Extra Dock Rent		4,6
	Ditto Rents of Property		36,8
	Ditto Miscellaneous—Canal Rates, Cranes, Weights and Scales, Damages, Weighing Machines, Dock Stages, Dock Line of Railway, Watching Lights on board Vessels, &c.		18,7
	Cash received from Fitzsimons, Applebee & Co.'s Estate in respect of Town Dues evaded, being final Dividend from Official Assignee		
	Amount transferred from Albert Dock Warehouses Account		19,5
	Ditto Whapping Dock Warehouses Account		10,0
	Ditto Stanley Dock Warehouses Account		7,8
	Ditto Birkenhead Dock Warehouses Account		3,3
	Interest allowed in Bank Account	£. 10,663 15 8	
	Less Commission	2,203 2 3	
			8,4
		£.	748,6

CONSERVANCY ACCOUNT.

		£.
1861: 24 June	To Cash received for Lighthouse and Floating Light Duties, and Buoyage and Maintenance Rates	23,
	Ditto Rating Chronometers	
	Ditto Sale of Wrecks, &c.	
	Ditto Sale of Charts	
	Cash received from British and Irish Magnetic Telegraph Company, one year's Rent Dock Line Electric Telegraph	
	Balance—Excess of Conservancy Expenditure, carried to Capital Account, temporarily	10,
	£.	34,

Dock Office, 24 June 1861.

Balance Sheet for the Year ending 24 June 1861.

CAPITAL ACCOUNT. *Cr.*

	£. s. d.	£. s. d.
By Cash paid Corporation, Interest on Consideration for Town Dues (provided for in Revenue Account of last year)	24,750 – –	
Ditto - Corporation, Interest due on Account of Birkenhead Dock Bonds (provided for in Revenue Account of last year)	15,895 – –	
		40,645 – –
Ditto - on Account of New Dock Works, Northern Extension, Timber Yards, &c.		130,813 7 4
Ditto - for Purchase of Property, Law Expenses in ditto, Parliamentary Expenses, Bond Stamps, &c.		68,030 2 4
Ditto - on Account of New Dock Works at Birkenhead		346,089 17 –
Ditto - for Purchase of Property, Birkenhead, and Compensation to Wallasey Frontagers		172,780 15 9
Ditto - Corporation, on Account of Consideration in respect of Town and Anchorage Dues		200,000 – –
Materials on hand and unexpended, viz.:—	£. s. d.	
Liverpool	37,667 15 4	
Birkenhead	32,555 13 6	
		70,223 8 10
Total Expenniture		1,028,582 11 3
Ditto - Repairs of Gates, &c., Trafford Dock (repaid by the Corporation)		76 14 9
Ditto - on Conservancy Account, being Excess of Expenditure, as per Conservancy Account, at foot		10,013 13 3
Amount in the hands of A. Heywood, Sons & Co., Bankers	£. s. d. 392,937 12 1	
Ditto - Treasurer	237 5 5	
		393,174 17 6
	£.	1,431,847 16 9

REVENUE ACCOUNT.

	£. s. d.	£. s. d.
By Cash paid Corporation, Interest, Consideration for Town Dues		22,500 – –
Ditto - ditto - in respect of Birkenhead Dock Bonds		15,895 – –
Ditto - on account of Interest on Bond Debt		335,430 – 4
Ditto - Annuities		311 4 8
Cash payable to Corporation, Interest, on 1st July 1861, on 900,000 *l.*, Balance of Consideration for Town and Anchorage Dues	£. s. d. 20,250 – –	
Ditto - ditto - on 23d July 1861, in respect of Birkenhead Dock Bonds	15,895 – –	
		36,145 – –
Cash paid Police		17,265 14 11
Ditto - ditto at Birkenhead		787 12 2
Ditto - for new Works for the improvement of the Estate		30,467 1 3
Ditto - General Repairs		43,417 19 11
Ditto - ditto - at Birkenhead		3,270 10 7
Ditto - Salaries		24,620 11 –
Ditto - Wages and Clothing of Dock Gatemen, &c		14,647 6 10
Ditto - - - ditto - - - at Birkenhead		813 – 6
Ditto - Miscellaneous—Landing Stages, Transit Sheds, Weights and Scales, Weighing Machines, Cranes, Cleansing Steps and Quays, Law Expenses, Stationery and Printing, Public Charities, Insurance of Property, &c.		34,813 19 11
Ditto for Miscellaneous Disbursements, Birkenhead		706 17 1
Total Expenditure on Revenue Account		£. 581,091 19 2
Ditto Balance—Surplus of General Receipts carried to Capital Account		167,599 8 6
	£.	748,691 7 8

CONSERVANCY ACCOUNT.

	£. s. d.
By Excess of Conservancy Expenditure from Capital Account last year	11,778 13 1
Cash paid Salaries	1,490 – –
Ditto - Wages, Oil and Repairs for Lighthouses, Life Boats, Telegraphs, &c.	10,025 10 1
Ditto - On account of the Construction of Egremont and Seacombe River Wall	978 – 4
Ditto - Commissioners of Leasowe Embankment, Moiety of Assessment	1,728 19 11
Ditto - On account of Electric Telegraphs	4,030 2 7
Ditto for Miscellaneous Disbursements, viz.:—Commissioners for the Conservancy of the River Mersey, Alterations, &c. at Observatory, Repairs at ditto, Surveying, Annual Visit of Inspection, removing Wrecks, Insurance, Stationery, &c.	4,006 5 6
£.	34,037 11 6

George J. Jefferson, Treasurer.

Dr. A GENERAL STATEMENT of the Affairs of - - - -

1860:					£.
25 June -	To Amount of Bonds, Assignments, and Mortgages outstanding this day - -				7,593,358
1861:		£.	s.	d.	
24 June -	Amount of Bonds issued since the 24th June 1860 - -	2,564,938	17	5	
	Of which the renewals of expired Loans amount to - -	1,249,368	13	1	
					1,315,570
				£.	8,908,929
1861:					
24 June -	To Amount of Bonds, Assignments, and Mortgages outstanding this day - -				8,548,018
	Interest due previously to June 1854, and remaining unclaimed -				477
	Ditto payable on Bond Debt on 1st July 1861 - - - -				115,562
	Interest payable to the Corporation on the 1st and 23d July 1861, as per Revenue Account - - - - - - - -				36,145
	Insurance Account - - - - - - - - -				15,394
				£.	8,715,59

To Balance, apportioned as follows; viz.:—	£.	s.	d.	£.	s.	d.	
Expenditure on Works at Birkenhead - in 1858	31,602	12	1				
Ditto - - ditto - - 1859	200,470	4	3				
Ditto - - ditto - - 1860	365,578	8	6				
Ditto - - ditto - - 1861	346,089	17	–				
Ditto - on Works previous to transfer to the Board - -	128,175	4	10	1,071,916	6	8	
Purchase of Property, Birkenhead, and Compensation to Wallasey Frontagers - - - - -	189,930	9	10				
Purchase of North Reserve - -	127,000	–	–				
Commissioners of Woods, &c., for Land, Woodside Basin - -	8,630	–	–				
On account of Birkenhead Dock Bonds - - - - -	125,000	–	–				
Parliamentary Expenses in obtaining the "Mersey Docks and Harbour Act, 1857" - - - -	17,223	2	1	467,783	11	11	
							1,539,69
On account of Consideration for Town Dues - - - - - -							600,00
Liverpool Expenditure - - - - - - - - - -							6,080,8
							8,220,5
Liabilities under the "Mersey Docks and Harbour Act, 1857"; viz.—							
To Balance of Compensation in respect of the Town Dues, payable in Nine Half-yearly Instalments of 100,000 *l.* each				£.	s.	d.	
				900,000	–	–	
Ditto in respect of Birkenhead Dock Bonds, payable in Instalments, as follows; viz.—	£.	s.	d.				
On the 23d of July 1861 - -	125,000	–	–				
Ditto - - 1862 - -	446,500	–	–				
Ditto - - 1865 - -	446,500	–	–	1,018,000	–	–	
							1,918,0
Balance of Purchase Money due to the Earl of Derby, for Land, Regent Road							27,8
							10,166,8

Dock Office,
Liverpool, 24 June 1861.

- - - - the MERSEY DOCKS and HARBOUR BOARD, 24 June 1861. *Cr.*

	£.	s.	d.	£.	s.	d.	£.	s.	d.
By Amount of Bonds and Assignments paid off since 24th June 1860 - -							360,910	7	7
Amount of Bonds outstanding this day :—									
At 5 per Cent. - - -	388,888	7	5						
4¾ „ - - - -	932,960	11	3						
4½ „ - - - -	2,596,362	15	–						
4¼ „ - - - -	1,501,478	12	–						
4 „ - - - -	3,035,945	15	5						
3 „ - - - -	700	–	–						
				8,456,336	1	1			
Amount of Assignments outstanding this day :—									
At 5 per Cent. - - -	4,800	–	–						
4¾ „ - - - -	6,700	–	–						
4½ „ - - - -	22,000	–	–						
4¼ „ - - - -	400	–	–						
4 „ - - - -	500	–	–						
				34,400	–	–			
Amount of Mortgages outstanding this day :—									
At 5 per Cent. - - -	200	–	–						
4½ „ - - - -	1,000	–	–						
4¼ „ - - - -	1,600	–	–						
4 „ - - - -	54,482	15	–						
				57,282	15	–			
							8,548,018	16	1
Average Rate of Interest for the Year, 4 *l.* 6 *s.* 7 *d.* per Cent.						£.	8,908,929	3	8
Amount of Materials unexpended - - - - - - - - - -							70,223	8	10
Amount unsettled in open Account with the L. & N. W. Railway Company, for Exchange of Land, Wapping - - - - - - - - - -							18,094	19	3
Ditto paid on Conservancy Account, to be deducted from next year's Receipts							10,013	13	3
Ditto due from the Corporation of Liverpool, on account of Prince's Landing Stage - - - - - - - - - - - - - - - - - -							3,584	8	8
				£.	s.	d.			
Ditto in the hands of A. Heywood, Sons & Co., Bankers				392,937	12	1			
Ditto - ditto - Treasurer - - - - - -				237	5	5			
							393,174	17	6
Balance - - - - - - - - - - - - - - - - - -							8,220,507	6	4
						£.	8,715,598	13	10

On behalf of the Mersey Docks and Harbour Board,
George J. Jefferson, Treasurer.

AMOUNT of Dock Duties at the Port of Liverpool, from the Year 1752, ending 24th June each Year.

Year.	Vessels.	£.	s.	d.	Year.	Vessels.	£.	s.	d.	Year.	Vessels.	£.	s.	d.
1752	-	1,776	8	2	1768	1,808	3,566	14	9	1784	3,098	6,597	11	1
1753	-	2,034	16	2	1769	2,054	4,604	5	-	1785	3,429	8,411	5	3
1754	-	2,095	11	-	1770	2,073	4,142	17	2	1786	3,228	7,508	-	1
1755	-	2,417	13	11	1771	2,087	4,203	19	10	1787	3,567	9,199	18	8
1756	-	2,187	16	9	1772	2,059	4,552	5	4	1788	3,677	9,206	13	10
1757	1,371	2,336	15	-	1773	2,214	4,725	1	11	1789	3,619	8,901	10	10
1758	1,453	2,403	6	3	1774	2,258	4,580	5	5	1790	4,223	10,037	6	2½
1759	1,281	2,372	12	2	1775	2,291	5,384	4	9	1791	4,045	11,645	6	6
1760	1,245	2,330	6	7	1776	2,216	5,064	10	10	1792	4,483	13,213	17	8¼
1761	1,319	2,382	-	2	1777	2,361	4,610	4	9	1793	4,129	12,480	5	5
1762	1,307	2,526	19	6	1778	2,292	4,649	7	7	1794	4,265	10,678	7	-
1763	1,752	3,141	1	5	1779	2,374	4,957	17	10	1795	3,948	9,368	16	4
1764	1,625	2,780	3	4	1780	2,261	3,528	7	9	1796	4,738	12,377	7	7
1765	1,930	3,455	8	4	1781	2,512	3,915	4	11	1797	4,528	13,319	12	8
1766	1,908	3,653	19	2	1782	2,496	4,249	6	3	1798	4,478	12,057	18	3
1767	1,704	3,615	9	2	1783	2,816	4,840	8	3	1799	4,518	14,049	15	1

Year.	Vessels.	Tonnage.	£.	s.	d.	Year.	Vessels.	Tonnage.	£.	s.	d.
1800	4,746	450,060	23,379	13	6	1806	4,676	507,825	44,560	7	3
1801	5,060	459,719	28,365	8	2½	1807	5,791	662,309	62,831	5	10
1802	4,781	510,691	28,192	9	10	1808	5,225	516,836	40,638	10	4
1803	4,791	494,521	28,027	13	7	1809	6,023	594,601	47,580	19	3
1804	4,291	448,761	26,157	-	11	1810	6,729	734,391	65,782	1	-
1805	4,618	463,482	33,364	13	1	1811	5,616	611,190	54,752	18	5

Year.	Vessels.	Tonnage.	Duties on Tonnage.			Duties on Goods.			Total.		
			£.	s.	d.	£.	s.	d.	£.	s.	d.
1812 - -	4,599	446,788	20,260	3	5	24,143	4	6	44,403	7	11
1813 - -	5,341	547,426	24,134	18	8	26,042	14	6	50,177	13	2
1814 - -	5,706	548,957	28,630	11	3	31,110	11	1	59,741	2	4
1815 - -	6,440	709,849	36,310	1	9	40,605	6	11	76,915	8	8
1816 - -	6,888	774,243	43,765	6	3	48,881	4	6	92,646	10	9
1817 - -	6,079	653,425	35,186	8	-	40,703	8	4	75,889	16	4
1818 - -	6,779	754,690	43,842	16	6	54,695	11	9	98,538	8	3
1819 - -	7,849	867,318	50,042	7	8	60,084	14	-	110,127	1	8
1820 - -	7,276	805,033	44,717	17	10	49,694	14	-	94,412	11	10
1821 - -	7,810	839,848	43,131	6	2	51,425	2	11	94,556	9	1
1822 - -	8,136	892,902	47,229	10	4	55,174	7	-	102,403	17	4
1823 - -	8,916	1,010,819	52,837	5	5	62,945	16	1	115,783	1	6
1824 - -	10,001	1,180,914	60,878	9	7	70,033	1	11	130,911	11	6
1825 - -	10,837	1,223,820	59,446	7	8	69,245	12	-	128,691	19	8
1826 - -	9,601	1,228,318	60,411	9	11	70,589	9	1	131,000	19	-
1827 - -	9,592	1,225,313	61,601	-	6	72,871	13	9	134,472	14	3
1828 - -	10,703	1,311,111	62,969	7	10	78,400	7	9	141,369	15	7
1829 - -	11,383	1,387,957	66,128	18	10	81,198	6	1	147,327	4	11
1830 - -	11,214	1,411,964	68,352	7	5	83,007	7	11	151,359	15	4
1831 - -	12,537	1,592,436	81,039	11	11	102,415	12	4	183,455	4	3
1832 - -	12,928	1,540,057	74,530	4	11	95,517	2	-	170,047	6	11
1833 - -	12,964	1,590,461	79,558	3	11	103,422	12	5	182,980	16	4
1834 - -	13,444	1,692,870	84,061	15	11	107,668	1	9	191,729	17	8
1835 - -	13,941	1,768,426	87,644	14	5	110,993	4	4	198,637	18	9
1836 - -	14,959	1,947,613	97,847	10	10	124,146	19	11	221,994	10	9
1837 - -	15,038	1,958,984	84,596	11	1	89,256	19	-	173,853	10	1
1838 - -	14,820	2,026,206	76,324	11	1	69,965	12	10	146,290	3	11
1839 - -	15,445	2,158,691	81,680	8	5	74,874	13	1	156,555	1	6
1840 - -	15,998	2,445,708	92,221	2	3	85,975	11	9	178,196	4	-
1841 - -	16,108	2,425,461	91,755	10	4	83,750	18	1	175,506	8	5
1842 - -	16,458	2,425,319	93,360	2	-	83,871	13	5	177,231	15	5
1843 - -	16,606	2,445,278	96,445	11	7	91,840	10	6	188,286	2	1
1844 - -	18,411	2,632,712	99,044	13	7	86,119	8	4	185,164	1	11
1845 - -	20,521	3,016,531	118,046	8	8	105,200	15	9	223,247	4	5
1846 - -	19,951	3,096,444	114,709	15	8	98,714	-	6	213,423	16	2
1847 - -	20,889	3,351,539	127,982	14	1	116,453	-	6	244,435	14	7
1848 - -	20,311	3,284,963	107,589	10	4	90,028	6	6	197,617	16	10
1849 - -	20,733	3,639,146	122,073	2	-	102,151	17	-	224,224	19	-
1850 - -	20,457	3,536,337	116,541	7	11	95,201	19	8	211,743	7	7
1851 - -	21,071	3,737,666	128,026	-	7	107,501	5	7	235,527	6	2
1852 - -	21,473	3,912,506	137,754	-	5	108,932	5	3	246,686	5	8
1853 - -	20,490	3,889,981	140,619	19	1	116,082	6	6	256,702	5	7
1854 - -	22,030	4,316,583	161,441	-	-	136,637	8	8	298,078	8	8
1855 - -	20,024	4,096,160	148,585	14	5	113,075	17	11	261,661	12	4
1856 - -	20,886	4,320,618	174,338	14	9	152,462	13	1	326,801	7	10
1857 - -	22,032	4,645,362	197,821	2	11	176,474	5	1	374,295	8	-
1858 - -	21,352	4,441,943	183,637	10	10	164,261	19	10	347,899	10	8
1859 - -	21,214	4,511,969	187,449	8	10	179,489	18	4	366,939	7	2
1860 - -	21,136	4,697,238	203,032	19	6	194,282	13	5	397,315	12	11
1861 - -	21,095	4,977,272	222,515	5	6	221,902	10	8	444,417	16	2

Dock Office, Liverpool,
24 June 1861.

George J. Jefferson, Treasurer.

MERSEY DOCKS AND HARBOUR BOARD.

ABSTRACT of the Accounts of the MERSEY DOCKS and HARBOUR BOARD, from 25 June 1860 to 24 June 1861.

(*Presented pursuant to Act of Parliament.*)

Ordered, by The House of Commons, *to be Printed,*
16 *May* 1862.

249.

Under 1 *oz.*

NEWCASTLE-UPON-TYNE TRINITY HOUSE.

RETURN to an Order of the Honourable The House of Commons, dated 3 April 1862 ;—*for*,

RETURN "showing the Total Amount of Money Levied or Received by the Trinity House Corporation of Newcastle-upon-Tyne, under the Act 41 Geo. 3, cap. 86, for Lighterage, Buoyage, and Pilotage, or under any other Act, or by Charter or otherwise, in each Year from the Year 1817 to 1861 inclusive, and specifying the Sums Received under each Head during each of those Years, and distinguishing, under separate and distinct Heads, the Expenditure, during each of those Years, upon Lights, Buoys, and Beacons, and also upon Charities, Salaries, and all other purposes whatever :"

" Copies of any recent Memorials or Representations to the Board of Trade, having reference to the Pilotage Jurisdiction of the said Trinity House :"

" And of any recent important Memorials or Representations having reference to Compulsory Pilotage, or to Restrictions on Pilotage Services, or the present System of Pilotage Rates, or the mode of enforcing Payment thereof; together with the Answers, if any, to such Memorials or Representations, or a short Statement of the Action, if any, taken thereupon."

Board of Trade, 20 July 1862.

EDGAR A. BOWRING, Registrar.

(*Mr. Lindsay.*)

Ordered, by The House of Commons, *to be Printed,* 25 *July* 1862.

INDEX.

PART 1.

Return of Correspondence containing Information given to the Board of Trade in answer to that part of the above-mentioned Order which relates to the Receipts and Expenditure of the Trinity House of Newcastle-upon-Tyne.

PART 2.

Return of Papers containing any recent Memorials or Representations of the Board of Trade having reference to the Pilotage Jurisdiction of the said Trinity House:

And of any recent important Memorials or Representations having reference to compulsory Pilotage, or to Restrictions on Pilotage Services, or the present System of Pilotage Rates, or the Mode of enforcing Payment thereof; together with the Answers to such Memorials or Representations, or a short Statement of the Action, if any, taken thereupon.

ABSTRACT OF PAPERS.

—	SUBJECT.	—
Board of Trade and London Trinity House, 1857.	Compulsory pilotage in the case of home-trade ships carrying passengers from the Thames to Hamburgh, notwithstanding the masters hold pilotage certificates of service under the 355th section of the Merchant Shipping Act, 1854.	Nos. 1 to 4.
London Trinity House and Board of Trade, 1857.	Whether a master or mate holding a pilotage certificate from the Trinity House enabling him to pilot the ship or ships specified therein, may have the names of additional ships (belonging to the same owners, and being of the same draught of water) inserted in such certificate, or whether he must obtain a fresh certificate in respect of such additional ships, and pay extra fees.	Nos. 5 to 8.
London Trinity House and Board of Trade, 1857.	Relative to making byelaws to meet above cases -	Nos. 9 and 10.
Chester and Holyhead Railway Company and Board of Trade, 1857.	Same as Nos. 5 to 8 - - - - -	Nos. 11 and 12.
London Trinity House and Board of Trade, 1857.	As to results of the exemption from compulsory pilotage in the Trinity House outport districts, of ships bound to ports in Europe North of Boulogne.	Nos. 13 and 14.
Steam Ship Owners Association and Board of Trade, 1857.	Representing that ships passing through the south channel of the Thames to the Channel Islands are subject to compulsory pilotage in the Trinity House, London district, whereas if such vessels with the same masters were bound to Havre or Brest they would be exempt from such pilotage.	Nos. 15 to 17.
Board of Trade and London Trinity House, 1859.	Pilotage on vessels in ballast - - - -	Nos. 18 to 21.
London Trinity House and Board of Trade, 1859.	Byelaws for altering rates of pilotage in Dartmouth, Weymouth, and Falmouth districts.	Nos. 22 to 28.

—	SUBJECT.	—
Board of Trade and London Trinity House, 1859.	Case of "Zenobia;" claim for pilotage although the ship had a regular North Sea pilot on board, and only brought up in Yarmouth Roads through stress of weather.	Nos. 29 and 30.
Mr. Sutton and Board of Trade. Messrs. Richtering and Board of Trade, 1859 and 1860.	Pilotage—Cases of "Girl I love" and "Louise" -	Nos. 31 to 34.
W. Smith, Esq., and Board of Trade, 1859.	Pilotage claim against steam-tug "Pilot" for carrying passengers from Weymouth Pier to the "Great Eastern."	Nos. 35 and 36.
Board of Trade and London Trinity House, 1860.	Case of the barque "Chase." Oppressive operation of law of pilotage.	Nos. 37 to 41.
Leith Harbour Commissioners, 1860.	Abolition of compulsory pilotage in port and harbour of Leith.	No. 42.
Thames pilots licensed for home trade passenger ships, 1860.	Complain that masters of steam vessels are licensed as pilots.	Nos. 43 and 44.
Thames Watermen, 1860 -	Praying that they may receive pilot licences for certain ships navigating the Thames.	Nos. 45 to 47.
Mr. Filgate, Board of Trade, and London Trinity House, 1860–1861.	Licensing pilots for Dundrum Bay - -	Nos. 48 to 51.
North Sea pilots of Sunderland, 1860.	Complaining of proceedings of unlicensed persons -	Nos. 52 and 53.
Down river pilots of Newcastle, 1860–1861.	Against extension by Newcastle Trinity House of sea pilots' district into river district.	Nos. 54 to 57.
Hartlepool pilots, 1861 -	Complaining of proceedings of Newcastle Trinity House in the matter of the establishment by the pilots of a Friendly Society.	Nos. 58 to 62.
Sea and river pilots of Newcastle, 1862.	Complaining of management and distribution of pilotage funds by Trinity House of Newcastle.	Nos. 63 to 66.
Shipowners of North and South Shields, 1862.	Similar complaints - - - - -	Nos. 67 and 68.
Pilots of Blyth, 1862 - -	Complaining of distribution by Newcastle Trinity House of pilots' funds.	Nos. 69 and 70.
North Sea pilots of Tyne, 1862	For alteration of pilotage laws with a view of removing certain existing doubts.	Nos. 71 and 72.
Sunderland pilots, 1862 -	Complaints against proceedings of unlicensed persons, and against management and powers of Newcastle Trinity House.	Nos. 73 and 74.
Board of Trade and Trinity House, Newcastle, 1862.	Complaints by Shields pilots of system of foreign pilotage tickets, and of mode of distributing compensation money payable to pilots since the abolition of Differential Pilotage Rates.	Nos. 75 to 77.
Foreign Office, Board of Trade, and London Trinity House, 1860.	Case of Netherlands vessel "Martha Alida;" excessive penalties on master for refusing a pilot's service when passing through Yarmouth Roads.	Nos. 78 to 84.
Messrs. Sumners and Pope, 1860.	Complain that when piloting ships from Falmouth to Hull and Shields they are superseded at those ports by licensed pilots.	Nos. 85 to 89.
Mr. T. Spencer, 1861 - -	Complains of unlicensed persons taking charge of ships in Shields district.	Nos. 90 and 91.
London Trinity House to Board of Trade, 1861.	Byelaws exempting ships in ballast from compulsory pilotage in Trinity House districts.	Nos. 92 and 93.
Registrar of High Court of Admiralty, 1861.	Calling attention to confused state of the laws and regulations concerning pilotage.	No. 94.
Mr. Carr, Mr. Moss, 1861 -	Amendment of laws relating to pilotage and the liability of a shipowner for damages although compelled to carry a licensed pilot.	Nos. 95 and 96.
London Local Marine Board, Trinity House, Board of Trade, 1859.	Establishment of a pilot station at Folkstone - -	Nos. 97 to 101.
Mersey Docks and Harbour Board, City of Dublin Steam Packet Company, and Board of Trade, 1859 and 1860.	Refusal of Mersey Docks and Harbour Board to examine masters and mates for pilotage certificates.	Nos. 102 to 112.

—	SUBJECT.	—
Milford Pilots, 1862 - -	Complain that foreign masters employ unlicensed men as pilots.	Nos. 113 and 114.
Watermen's Company, 1862 -	Complain of liability of barge-owners for damage, though compelled to take licensed persons to navigate their craft.	No. 115.
Board of Trade and London Trinity House, 1862.	Wreck of Swedish barque "Mathilda." Pilotage in Yarmouth Gattways.	Nos. 116 to 119.
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Board of Trade and Pilot Commissioners of Boston, 1859.	Refusal of Boston Pilot Commissioners to examine masters and mates for pilotage certificates.	Nos. 144 to 154.
Board of Trade and Harbour Commissioners of Waterford, 1860 and 1861.	Refusal of Harbour Commissioners of Waterford to examine masters and mates for pilotage certificates.	Nos. 155 to 160.
Board of Trade and Harbour Commissioners of Londonderry, 1861.	Refusal of Harbour Commissioners of Londonderry to examine masters and mates for pilotage certificates.	Nos. 161 to 166.

CORRESPONDENCE.

Part 1.

Return of Correspondence containing Information given to the Board of Trade in answer to that part of the above-mentioned Order which relates to the Receipts and Expenditure of the Trinity House of Newcastle-upon-Tyne.

No. 1.

Mr. Farrer to the Secretary, Trinity House, Newcastle-upon-Tyne.

(No. 3,983.) Board of Trade, Marine Department,
5th April 1862.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the annexed extract from an Order of the House of Commons, dated 3rd April, calling for certain returns in connexion with the Trinity House of Newcastle-upon-Tyne, and I am to request that you will furnish their Lordships with returns under the different heads mentioned in the Order.

I am, &c.
T. H. FARRER.

The Secretary, Trinity House,
Newcastle-upon-Tyne.

Enclosure in No. 1.

Ordered, That there be laid before this House, a return showing the total amount of money levied or received by the Trinity House Corporation of Newcastle-upon-Tyne, under the Act 41 Geo. 3. cap. 86. for lighterage, buoyage, and pilotage, or under any other Act, or by charter or otherwise, in each year from the year 1817 to 1861 inclusive, and specifying the sums received under each head during each of those years, and distinguishing, under separate and distinct heads, the expenditure, during each of those years, upon lights, buoys, and beacons, and also upon charities, salaries, and all other purposes whatever.

No. 2.

Mr. John Currie to the Secretary, Board of Trade.

(No. 7,002.) Trinity House, Newcastle,
20th June 1862.

Sir,

I beg to hand you a return of receipts and expenditure from and upon buoys, beacons, and lights, for the years 1859, 1860, and 1861, by this Corporation.

On reference to the Parliamentary and Board of Trade records it will be found that returns have been previously made down to and inclusive of 1858, the last return having been transmitted to the Board of Trade on the 9th July 1859.*

To make out a return from the year 1817, a period of 45 years, would involve the necessity of examining the Trinity House books for nearly half a century, and the incurring a very heavy expense to accountants, the Board not having an establishment of clerks to prepare and complete such a statement.

The Trinity House have no receipts in respect of pilotage, the amount paid going to the pilots themselves, any unclaimed pilotage going to the Pilots' Relief Fund.

The expenses of the House in respect of pilotage are defrayed out of their other resources, except the pilot master's salary and the office expenses.

I am, &c.
JOHN CURRIE, Secretary.

The Secretary, Board of Trade.

* See Parliamentary Paper, 163, Sess. 2, 1859.

Enclosure in No. 2.

RETURN of SUMS received by the TRINITY HOUSE of NEWCASTLE-UPON-TYNE, under the Act of 41 Geo. 3. cap. 86, for LIGHTAGE, BUOYAGE, and PILOTAGE, or under any other Act, or by Charter or otherwise, in the Years 1859, 1860, and 1861, and of the EXPENDITURE in each of those Years, upon LIGHTS, BUOYS, and BEACONS, and also upon CHARITIES, SALARIES, and all other purposes whatever.

1859.

BUOYS and BEACONS.

Receipts.	£	*s.*	*d.*	*Expenditure.*	£	*s.*	*d.*
Dues - - - - - -	1,491	17	6	Repairs of buoys and beacons, &c. -	424	11	0
				Salaries, charitable subscriptions, and sundry other charges - - -	537	12	0

LIGHTS.

Receipts.	£	*s.*	*d.*	*Expenditure.*	£	*s.*	*d.*
Dues - - - - - -	2,396	5	10	Ordinary expenses - - - -	1,029	4	6
				Salaries, charitable donations, and sundry other charges - - - -	757	18	9

1860.

BUOYS and BEACONS.

Receipts.	£	*s.*	*d.*	*Expenditure.*	£	*s.*	*d.*
Dues - - - - - -	1,484	12	10	Repairs of buoys and beacons - -	699	6	9
				Salaries, charitable subscriptions, and sundry other charges - - -	448	17	5

LIGHTS.

Receipts.	£	*s.*	*d.*	*Expenditure.*	£	*s.*	*d.*
Dues - - - - - -	2,493	6	2	Ordinary expenses - - - -	1,059	7	11
				Salaries, charitable subscriptions, and sundry other charges - - -	600	4	4

1861.

BUOYS and BEACONS.

Receipts.	£	*s.*	*d.*	*Expenditure.*	£	*s.*	*d.*
Dues - - - - - -	1,597	14	11	Ordinary expenses of repairs of buoys and beacons - - - - -	784	7	10
				Salaries, charitable subscriptions, and sundry other charges - - - -	568	1	3

LIGHTS.

Receipts.	£	*s.*	*d.*	*Expenditure.*	£	*s.*	*d.*
Dues - - - - - -	2,485	1	5	Ordinary expenses - - - -	1,146	4	9
				Salaries, charitable subscriptions, and sundry other charges - -	882	13	11

A portion of the pensions to disabled mariners, widows, and children is defrayed out of the funds derived from buoys, beacons, and lights, but has not been apportioned or debited in this return.

No. 3.

SIR J. EMERSON TENNENT to the SECRETARY, TRINITY HOUSE, NEWCASTLE.

(No. 7,002.) Board of Trade, Marine Department,

SIR, 27th June 1862.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 20th inst., transmitting certain returns of receipt and expenditure of the Trinity House of Newcastle for the years 1859, 1860, and 1861, and stating that on reference to Parliamentary and Board of Trade records it will be found that returns have been previously made down to and inclusive of the year 1858.

I am, in the first place, to point out to you that the returns in July 1859 were fuller than those now furnished, as the latter do not give all the particulars required by the House of Commons' order, no reference being made in the returns furnished to the amounts received by the Newcastle Trinity House out of public monies in respect of differential dues on foreign ships and goods, or to the revenue of the Corporation from sources other than dues on ships and goods. Parl. Paper, No. 163, Sess. 2, 1859.

I am also to request that you will be good enough to give a specific reference to the returns to which you allude as being found in the Parliamentary records. If the returns to be laid before Parliament are not in precise accordance with the order of the House, it will of course rest with the Trinity House to point out exactly and fully in what respects they are defective, and what are the reasons for not making them complete.

I have, &c.

The Secretary, Trinity House, Newcastle. J. EMERSON TENNENT.

No. 4.

Mr. J. Currie to the Secretary, Board of Trade.

(No. 7,963.) Trinity House, Newcastle,
12th July 1862.

Sir,

Your letter of the 27th ult., No. 7,002, has been laid before the Board of this House, and I am directed to inform you that the Trinity House of Newcastle do not receive any differential dues on goods, the only differential dues payable to them being lights, buoys, and beacons dues, which are included in the return transmitted on the 20th ult. As these dues are not separately mentioned, but included under one general head, together with lights, buoys, and beacon dues on British vessels, I have to state, for the information of my Lords of the Committee of Privy Council for Trade, that the differential lights, buoys, and beacon dues received in 1859 amounted to 414*l.* 6*s.* 4*d.*, in 1860 to 461*l.* 17*s.* 4*d.*, and in 1861 to 461*l.* 14*s.* 10*d.* These figures should agree with the returns already in the possession of the Board of Trade. If there be any difference it will arise from the Trinity House of London deducting commission for examination of the accounts.

On reference to the order of the House of Commons of the 3rd April last, it will be found to require a return of the money received for lightage, buoyage, and pilotage, under the 41st Geo. 3. c. 86., or under any other Act, or by charter or otherwise, and of the expenditure upon lights, buoys, and beacons, and upon charities, salaries, and all other purposes whatsoever. I am to observe that the return already made specifies the receipts of the House under the enumerated heads, and the application of the amount so received, and to submit that a return is not asked of the general property of the Trinity House, derived from other sources and held under a distinct and different title.

I have, &c.
JOHN CURRIE,
Secretary.

Sir J. Emerson Tennent,
Board of Trade.

Part 2.

Return of Papers containing any recent Memorials or Representations to the Board of Trade, having reference to the Pilotage Jurisdiction of the said Trinity House:

And of any recent important Memorials or Representations having reference to compulsory Pilotage, or to Restrictions on Pilotage Services, or the present System of Pilotage Rates, or the Mode of enforcing Payment thereof; together with the Answers to such Memorials or Representations, or a short Statement of the Action, if any, taken thereupon.

No. 1.

Mr. Farrer to the Secretary to the Trinity House.

(No. 3,319.) Marine Department, Board of Trade,
25th March 1857.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to request you to call the attention of the Elder Brethren of the Trinity House to a question concerning compulsory pilotage which has been raised in the case of the "Countess of Lonsdale" reported in the "Shipping Gazette" of the 18th instant, and which has also been called to the attention of my Lords by an application from the master of another vessel, a copy of which is enclosed.

It appears that the ship was employed in carrying passengers between London and Hamburgh; that the master had a certificate granted by the Board of Trade under the 355th sect. of the Merchant Shipping Act, that a Trinity House pilot offered his services as the vessel was going down the Thames, that those services were refused, and that the Magistrates on application to them decided that the master was bound to take the pilot and pay pilotage.

Whether the construction put on the Act by the Magistrates be the correct one may perhaps admit of some doubt; but, however, this may be, my Lords do not consider that that construction is consistent with the intention of its framers. It was undoubtedly intended that the exemptions from compulsory pilotage which existed before the passing of the Act should continue, subject to the exception of passenger vessels, which it was considered ought for the future to be navigated either by a qualified pilot or by an officer who had given proof of his competency. But in order to prevent this new obligation from presssing unduly on officers, who before the passing of the Act had been in the habit of piloting their own vessels, the Board of Trade was enabled, by the 355th sect. of the Act, to give to such officers certificates which should have the effect of relieving them from the new obligation. It now appears that in consequence of the introduction of the words "when not carrying passengers" in sect. 379, and of the wording of sect. 355, the relief given under the latter section 355 is less extensive than the obligation it was intended to meet, and that men who have been in the habit of piloting their own vessels prior to the passing of the Merchant Shipping Act, are, notwithstanding that they have obtained a certificate of service from the Board of Trade, now obliged when carrying passengers to employ a pilot.

My Lords request, therefore, that the Elder Brethren will consider the point and favour my Lords with their opinion upon it, and they desire me also to suggest that the Elder Brethren may, if they concur with my Lords, set the matter at rest by submitting to Her Majesty an Order in Council under the 332nd sect. of the Act exempting from compulsory pilotage, all vessels mentioned in the exemptions contained in sect. 379, whether carrying passengers or not, provided they are navigated by officers possessing proper certificates under sect. 355.

I am, &c.

To the Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 1.

General Steam Navigation Company's Ship "Concordia,"
Rotterdam, 16th March 1857.

Gentlemen,

I write from hence that you may have more time to consider the matter which I now beg leave to lay before you, and be enabled before Saturday next, when I shall again leave the Thames, to favour me with an answer to a question much disputed.

The matter is compulsory pilotage, and the question to be considered is whether, as master of a passenger ship running from London to ports included between the rivers Elbe and Brest, and in possession of a pilotage certificate (150. 141.) granted by the Board of Trade, "Authorizing me, "notwithstanding anything in the 354th section of the Merchant Shipping Act, to pilotany ship, being "the property of the General Steam Navigation Company, and not drawing more than fifteen feet of "water," I am compelled to take a pilot? I have been 40 years at sea, and more than half that time in charge of ships of the Company, varying in draught from eight feet to fifteen feet; my certificate bears date 30th April, 1855, was renewed last May (when I was on the same line as now) for twelve months, and is, I presume, in force until next May.

Granted as it is by the Board of Trade I further presume that if cancelled at all it must be done by the same Board, and if the wording of the section under which it is granted be so ambiguous as to admit of different constructions, then I apprehend that it will be for the Board to publish in plainer terms what its meaning is. Up to the present however it seems to have been understood in the same sense in which I have, and do now understand it; but to my surprise, when off Gravesend on Saturday last a pilot came alongside and asked if I had a pilot on board? I answered that I had not, and did not require one; to which he replied that he was quite aware of that, and then said "Do you refuse to take me?" I informed him that I had a pilotage certificate which empowered me to pilot my own ship. He expressed a wish to see it, and came on board for that purpose, at sight of which he exclaimed "It's issued from the Board of Trade," and declared it to be a useless document to me, as the ship to complete her voyage must leave the English coast, and under such circumstances was not considered a home trade ship, it having been so decided by a Magistrate, not the Board of Trade, in some court the day before in a case between another pilot and the master of the "Countess of Lonsdale." I inquired for what purpose was it then issued? and he replied for the coasting trade only. I then told him that I should not be influenced in the present case by what a magistrate or even a judge might have done, but should refer it to the Marine Department of the Board of Trade by whom my certificate was granted, promising at the same time that if that Department should decide that he was entitled to pilotage under such circumstances (which I cannot conceive to be likely) he should receive it, although I should dispense with his services, as I knew from the then state of the weather it would be very inconvenient if not impossible for me to land him without greatly deviating from my course. In justice to the pilot I must add that his manners were courteous and polite, and in the presence of passengers, whose certificate to that effect I now hold, he consented to abide by your decision and so prevent any unnecessary law proceedings.

I shall be in London on Thursday, but must leave it again on Saturday following; may I beg therefore that before that time you will kindly forward to me at the Company's office, 71, Lombard Street, your decision in this case? But if the time is not sufficient for that purpose then furnish me with some document that will exempt me from pilotage until the law to that effect is made comprehensible to masters, pilots, and magistrates, and also judges who have in some nautical questions decided against the rules laid down by the Admiralty.

With many apologies for intruding so long on your time, and repeating my request that I may be favoured with an answer before Saturday next,

I have, &c.
W. Phillips, Master.

To the Lords Committee of Privy Council for Trade,
Marine Department.

No. 2.

Mr. Farrer to Captain W. Phillips.

(No. 3,319.)

Marine Department, Board of Trade,
19th March 1857.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 16th inst., relating to the question whether you can be compelled to take a pilot on board your vessel the "Concordia," whilst engaged in the home trade passenger traffic, notwithstanding that you hold a pilotage certificate from the Board.

In reply I am to inform you that my Lords see no reason to doubt the correctness of the decision at which the Magistrate arrived in the case to which you refer, but as there seems to be some doubt as to the general intention of the Act my Lords will write to the Trinity House on the subject and communicate further with you.

I am, &c.
T. H. FARRER.

Captain W. Phillips, General Steam Navigation Company's Offices,
71, Lombard Street.

No. 3.

Mr. Berthon to the Secretary of the Marine Department, Board of Trade.

(No. 4,776.)

Trinity House, London, 22nd April 1857.

Sir,

Having brought under the consideration of the Elder Brethren your letter of the 25th ultimo, calling their attention to a question concerning compulsory pilotage, which

has been raised in the case of certain ships, employed in carrying passengers between London and Hambro', the masters of which have received certificates from the Board of Trade, under the 355th Section of the "Merchant Shipping Act, 1854," but have been held liable to employ pilots, and pay pilotage, by the Magistrates at Gravesend, before whom informations have been laid by pilots on the refusal of their services, I am directed to acquaint you, for the information of the Lords of the Committee of Privy Council for Trade, that, having consulted their legal adviser on the subject, the Elder Brethren are of opinion, that, as the law at present stands, the decision of the Magistrates is strictly consistent therewith, inasmuch as the ships in question are exempted by the 379th sect. only "when not carrying passengers," and were not ships carrying passengers between any of the places mentioned in the 354th sect. to the masters or mates of which *alone* the Board of Trade is by the following section (355th) empowered to grant certificates upon satisfactory proof of competency: It therefore appears to the Elder Brethren that in the present state of the law, the only course for the masters of such ships, if desirous of exemption from compulsory pilotage, is that of such masters or their mates obtaining from this Corporation certificates after examination under the 340th section.

Although the Elder Brethren cannot but entertain the opinion, that the test of a personal examination, and of a periodical renewal of the certificate, as required by the 340th and 341st sections, would more effectually provide for the security of life, and attain the object the Legislature had in view, yet, having regard to their Lordships' statement, as to what was their intention as the framers of the Act, and to the fact that, previously to the passing of the same, such ships were exempt from compulsory pilotage, whether carrying passengers or not, the Elder Brethren are prepared to submit a byelaw for the consent of Her Majesty in Council, as suggested by their Lordships, which shall have the effect of placing the masters or mates, who had been in the habit of piloting such ships previously to the passing of that Act, in the same position, with respect to their obtaining certificates from the Board of Trade, as the masters or mates of ships carrying passengers, as mentioned in the 354th Section.

I am, however, to observe that it appears to the Elder Brethren, that an Order in Council to the effect suggested by their Lordships, exempting from compulsory pilotage *all* ships mentioned in sect. 379, whether carrying passengers or not, would create great inconvenience and impose a condition, in respect of the exemption of all such ships when *not* carrying passengers, not formerly nor at present existing, and would subject *all* such ships to the condition of obtaining a certificate from the Board of Trade.

Under these circumstances the Elder Brethren are of opinion that the byelaw, after reciting the present state of the law, should be confined to the class of ships mentioned in clause No 3 of the 379th section, and be as follows:—

"That ships trading to Boulogne, or to any place in Europe north of Boulogne, shall be exempted from compulsory pilotage, in the London district, when carrying passengers, subject to the terms and conditions following, viz.,—

"That the master or mate of every such ship, shall have continuously piloted the same within the limits of the London district for two years prior to the commencement of the Act, and unless he already have a certificate from the Trinity House under the 340th Section thereof, shall apply to the Board of Trade and obtain from that Board a certificate, to the effect that he is authorized to pilot such ship or ships, as may be specified in such certificate, within the limits therein mentioned; the Board of Trade causing such certificate to be granted in conformity with the requirements of the 355th section of the said Act, as far as the same are applicable to the objects of this byelaw, and such certificates to be and remain in force, as in that section is mentioned and provided."

I am further directed by the Elder Brethren to take this opportunity of requesting their Lordships' attention to a most serious inconvenience which has been found to result from the introduction into the 379th section of the words "and in the Trinity House "outport districts" which were not contained in any former Act; and the effects of which are now manifesting themselves, to the great prejudice of the pilots, and to the risk of navigation. It has been successfully contended, that the effect of the words in question as applied to ships mentioned in clause No. 3 of that Section, is to exempt ships trading to any port in Europe, north of Boulogne, from employing pilots in *any Trinity House* district whatever, notwithstanding such ships were exempt under the former Act in the London district only, and all previous liability to compulsory pilotage is continued by section 353. As an illustration of the inconsistency resulting from this enactment, it follows, that a ship so trading is held to be exempt when entering Neath, Newport, or Bridgwater, in the Bristol Channel, (the same being Trinity House Outport districts) but liable to employ a pilot in Swansea, Cardiff, Bristol or any other district in that Channel which is not under this Corporation's jurisdiction.

It appears to the Elder Brethren, that the 332nd section does not give power by byelaw, to remedy this serious evil, inasmuch as that section contemplates the *extension* only and not the *restriction* of exemptions; and that the inconvenience to the service, and the ruinous effects it has upon the employment of the pilots, can only be remedied by legislative enactment: I am therefore to signify the request of the Elder Brethren, that their Lordships will give the subject their consideration, with a view to the adoption of such steps in the matter as their Lordships may see proper for the accomplishment of that object.

I am further directed by the Elder Brethren to state, that it appears to them, that much advantage would result from the establishment of a byelaw, requiring the masters of all ships liable to compulsory pilotage to display the customary signal for a pilot, on entering the limits of any pilotage district, in like manner and under the same penalties as masters of ships, coming from the westward, and bound to the Port of London, are required to do, under the 378th section of the Act.

I am also directed to suggest, for their Lordships' consideration, whether, in the event of their Lordships concurring with the Elder Brethren that it would be desirable to amend the provisions of the Act as regards the inconsistency above alluded to, existing in the 379th section, their Lordships may not in that case prefer accomplishing the several objects now under consideration by means of a short explanatory Act to be passed in the ensuing Session of Parliament.

I have, &c.
P. H. BERTHON.

The Secretary,
Marine Department, Board of Trade.

No. 4.

Mr. Farrer to the Secretary of Trinity House.

(No. 4,776.) Marine Department, Board of Trade,
5th May 1857.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 22nd ult., relating to a question concerning compulsory pilotage, which has been raised in the case of certain ships employed in carrying passengers between London and Hambro', the masters of which have received certificates from the Board of Trade under the 355th sect. of the Merchant Shipping Act, 1854.

With reference to the opinion of the Elder Brethren that the byelaw suggested by my Lords to be submitted for Her Majesty's approval in Council, "should be confined to the class of ships mentioned in clause No. 3 of the 379th section" of the Act, I am to observe that their Lordships think that this byelaw would be insufficient to meet the case. The 376th sect. subjects ships to compulsory pilotage when within the Trinity House districts. The 379th sect. exempts from this compulsory pilotage six classes of ships mentioned therein, of which those trading to the north of Boulogne are only one class; but it confines the exemption to the cases where the ships are not carrying passengers. Consequently all these ships when carrying passengers are subject to compulsory pilotage, although they were not so subject before the passing of the Act, and although their masters or mates may have piloted their vessels for two years previously to the passing of the Act, and may have even obtained their certificates of pilotage service from the Board of Trade under the 355th sect. of the Act. Consequently the grievance will only be partially removed if the exception is confined to ships passing to the north of Boulogne. It is further to be observed that the byelaw, as proposed by your Board requires masters who may have already obtained a Board of Trade certificate under the 355th sect. of the Act, again to apply for and obtain a similar certificate in order to give them the benefit of the proposed exemption. This my Lords presume can scarcely have been intended. My Lords desire me therefore to suggest, for the consideration of the Elder Brethren, that in order to meet the case the proposed exemption should extend to cases in which the certificate of the Board of Trade has been already duly obtained, as well as to those in which it may hereafter be obtained; and that the class of vessels to be exempted ought to be as follows: viz., all vessels mentioned in the exemptions contained in the 379th sect. of the Act, even though carrying passengers, provided, as regards ships navigating between ports in the United Kingdom, the Channel Islands, and the Isle of Man, that the masters or mates have obtained or hereafter obtain a Board of Trade certificate under the 355th sect. of the Act for particular districts to which the exemption extends.

As regards that portion of your letter which requests their Lordships' attention to the inconvenience which has been found to result from the introduction into the 379th sect. of the Act of the words "and in the Trinity House outport districts," I am to observe that it appears to their Lordships, from the information before them, to be at least doubtful whether the case is of sufficient importance to require legislation. The grievance complained of appears to be that vessels trading between ports north of Boulogne and outports, where the Trinity House have Sub-commissioners, are unintentionally exempted from compulsory pilotage. It appears to my Lords, that the trade thus exempted from compulsory pilotage cannot be great, and that the loss to the pilots can scarcely be such as to impair the service. They will, however, be glad to receive further specific information on this point which the Elder Brethren may think it expedient to procure.

With reference to the suggestion of the Elder Brethren, that much advantage would result from the establishment of a byelaw requiring the masters of all ships, liable to compulsory pilotage, to display the customary signal for a pilot on entering the limits of any pilotage, my Lords desire me to state that the suggestion appears to them well worthy of consideration, whenever an opportunity of legislating arrives, but that it does not appear worth while to legislate for this purpose alone.

The Secretary of the Trinity House.

I have, &c.
T. H. FARRER.

No. 5.

Mr. P. H. Berthon to Capt. A. McG. Skinner, R. N.

Gentlemen, Trinity House, London, E.C., 8th May 1857.

With reference to your request that the certificates granted to George Taylor, Thomas Jones, James Beaumont, and William C. Townley, may have the names of two vessels, the "Telegraph" and "Sea Nymph" specified on such certificates in addition to those now thereon, I am to refer you to the 340th section of the above mentioned Act, wherein it is provided that if the master or mate of any vessel shall upon examination be found competent, a pilotage certificate shall be granted to him, containing his name and a specification of the ship or ships in respect of which he has been examined, and such certificate shall enable the person therein named to pilot the ship or any of the ships therein specified, of which he is acting as master or mate at the time, but no other; and as the Elder Brethren are desirous of adhering strictly to the provision of the said Act, I am to acquaint you that it will be necessary that you should proceed with and certify the examination of the persons above named for the said two vessels, in order that certificates may be issued to enable them to pilot the same in addition to those for which they are already certified.

Capt. A. McG. Skinner, R.N., and Sub-Commissioner of Pilotage, Holyhead.

I have, &c.
P. H. BERTHON.

Enclosure in No. 5.

Chester and Holyhead Railway.
Steam Packet Office, Holyhead, 11th May 1857.

Pilotage, "Telegraph" and "Sea Nymph."

Remarks upon a Letter sent by the Elder Brethren of the Trinity House to the Sub-Commissioners of Pilotage for Holyhead District under date 8th instant.

The Elder Brethren appear singular in the construction they are pleased to put on section 340 of the Merchant Shipping Act.

The other pilotage authorities have raised no such objection, but have inserted all the vessels' names, nor have they in any case put the Company to the expense of paying the fees for certificates demanded by the Trinity House, which have up to this time amounted to 30*l.* 16*s.*, and the present demand will be about 15*l.* 8*s.* more. The Board of Trade have acted in the same liberal spirit, and have in no case charged fees. This Board may, it is presumed, be deemed competent to put a proper construction upon the spirit and meaning of the Act, and they do not insert upon the certificates issued by them under section 355 the names of the vessels, but state to pilot any ship, being the property of the Chester and Holyhead Railway Company (see extract from one of the certificates), "to pilot any ship being the property of the Chester and Holyhead Railway Company, and not drawing more than 13 feet of water, within the above-mentioned limits."

It is to be supposed, as before observed, that this Board is competent to put a proper construction upon the Act, which was intended, doubtless, to insure the public having some guarantee that their

ives and property were not entrusted to persons totally ignorant of the dangers of the coasts they were employed upon; and in legislating in this respect, all right minded men will agree that Parliament acted wisely, but it was never intended that the Act should operate vexatiously upon the ship owner, or be made a source of profit to those who have the power to examine officers, who must pass examination under the provisions of the Act recited, nor can it for a moment be supposed, that the Elder Brethren are influenced by any such motives, looking to the liberal spirit in which they issued their first instructions as to the mode of examination to be pursued under the Act.

Captains Townley and Beaumont, with mates Taylor and Jones, have all undergone the examination they are called upon to repeat; not that there is any doubt as to their qualifications (as they have all acted as pilots, and successfully, since the passing of the Act in 1854), nor that there is any essential difference between the vessels already inserted in the certificates and those since purchased by the Company, as they are of the same description, drawing about the same draught of water, propelled by the same motive power, and applied in the same way. This being the case, it may be reasonably asked, does the public safety require that these men should undergo a nominal examination for the mere form, and to take out of the Company's pockets the sum of 15*l.* 8*s.*? common sense says no. As well may the ordinary pilot be called upon to be examined anew for every fresh vessel he pilots, and, indeed, with vastly more reason might he be called upon to do so, as his duties require him to jump on board vessels at a moment's warning, that he has never before seen, knows nothing of their qualities, nor whether they are well or badly found in the essential requisites to enable him to bring to a successful termination his duty as a pilot.

Should the Elder Brethren insist on carrying out their views, the Company will be compelled to submit the matter for the consideration of the Board of Trade.

No. 6.

Mr. Farrer to the Secretary, Trinity House.

(No. 5,657.) Marine Department, Board of Trade,
15th May 1857.

SIR,

I am directed by the Lords of the Committee of Privy Council for Trade to acquaint you than an application has been made to the Board respecting the case of certain mates in the service of the Chester and Holyhead Railway Company who have obtained pilotage certificates from the Trinity House, and who are desirous of having indorsed thereon the names of two new vessels of the same size and draft of water as those for which they are already licensed. It is stated that the Elder Brethren think themselves unable to do this without a new examination and the payment of additional fees; and a copy of a letter from you, dated 8th May 1857, to the Sub-Commissioners has been forwarded, in which the Elder Brethren refer to the words of the 340th section of the Act as precluding them from granting the application.

My Lords desire me to suggest that the words "at the time" in the passage to which the Elder Brethren refer, relate not to the time at which the certificate is granted but to the time at which the master or mate is piloting his ship. This appears to be the more natural construction; and even if the words are capable of two constructions, it seems improbable that the Legislature should, in making provision for exempting competent masters and mates from compulsory pilotage have intended to subject men who are admitted to be competent, to an examination which is allowed to be needless, and to the payment of heavy fees for passing it.

My Lords have thought it right to make these remarks as your letter has been sent to them, but they would be glad to have the opinion and observation of the Elder Brethren on the whole case.

The Secretary, Trinity House.

I have, &c.
T. H. FARRER.

No. 7.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 6,447.) Trinity House, London, E.C.
4th June 1857.

SIR,

I am directed by the Elder Brethren to acknowledge the receipt of your letter of the 15th ultimo, in relation to an application of certain mates in the service of the Chester and Holyhead Railway Company, who have obtained pilotage certificates from this Board and are desirous of having the names of two new vessels of the same size and draft of water as those for which they have been already examined and licensed, added to those specified in their certificate, which request the Elder Brethren have stated that they do not feel themselves in a position to accede to; and I am to observe, for the information of the Lords of the Committee of Privy Council for Trade, that while the

Elder Brethren fully concur in the justice of the remarks which their Lordships make upon this subject, and also upon the improbability that a manifestly unnecessary examination should have been intended to take place, they are nevertheless unwilling to take upon themselves the responsibility of acting otherwise than in accordance with the literal interpretation of the words of the 340th sect. of the Merchant Shipping Act, 1854, and in confirmation of the correctness of the view which they have hitherto taken of the section in question they have directed me to forward you the accompanying copy of our solicitor's opinion thereon. It appears therefore to the Elder Brethren that it will be necessary to have recourse to legislative enactment to enable them to act in this matter as their Lordships desire.

I am also directed to acknowledge the receipt of your letter of the 5th ultimo (No. 4,776), conveying their Lordships' views upon the suggestion of the Elder Brethren submitted by mine of the 22nd April, and adverting to their Lordships' observations upon the desirability of the proposed extension of the provisions of the 378th sect. of the Act, to the case of all vessels liable to compulsory pilotage when entering pilotage districts, I am to state that the Elder Brethren hope that these two subjects, together with the omission of the words "and in the Trinity House outport districts," now contained in the 379th section, for which they expect to be enabled to furnish their Lordships with sufficient grounds when replies shall have been received from all the outports, will be deemed by their Lordships of sufficient importance to justify the introduction of a short Act during the present session of Parliament.

Adverting to the question of the service certificates of masters and mates in the Hambro' trade, I am to observe that the Elder Brethren consider that this may also be made a subject for introduction into the proposed Act, instead of being accomplished by a byelaw, and may be advantageously introduced as a concession to the wishes of the shipowners.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Enclosure in No. 7.

Sir, Fenchurch Street, 22nd May 1857.

In reply to your letter of the 21st instant, I beg to say, that I have referred to and considered the 340th section of "The Merchant Shipping Act, 1854." It appears to me that the pilotage certificate to be granted to the master or mate of any ship, under that section, must be a certificate complete at the time of its being granted. The certificate must contain a specification of the ship or ships in respect of which the master or mate has been examined, and "enables the person therein "named, to pilot the ship or any of the ships therein specified of which he is acting as master or mate "at the time, but no other." I am therefore of opinion, that the names of any ships not specified in the certificate, and which have subsequently become the property of the same owner, are not embraced by the 340th section, and cannot, according to its meaning, be inserted in the certificate in addition to those originally specified therein.

I am, &c.
Jno. Coles Symes.

P. H. Berthon, Esq.

No. 8.

Mr. Farrer to the Secretary, Trinity House.

(No. 6,447.) Marine Department, Board of Trade,
Sir, 20th June 1857.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 4th inst., on the subject of the question which have lately arisen with respect to compulsory pilotage. The proposed changes appear to be four.

1. To extend the provisions of sect. 378 of the Merchant Shipping Act, which requires vessels to hoist a pilot flag at Dungeness, to all vessels entering any district where pilotage is compulsory.

The proposal appears, as my Lords have already stated, to be worthy of consideration but as the effect would be to render compulsory pilotage more stringent, my Lords are not prepared to press its adoption without learning the views of the trade, nor if admitted to be desirable, do they think it a matter of sufficient importance to call for legislation.

2. To alter the 379th section of the Merchant Shipping Act by confining the exemptions from compulsory pilotage therein contained to the London district, so that vessels mentioned in that section as exempted may be liable to compulsory pilotage in the

utport districts of the Trinity House as they were before the Merchant Shipping Act assed.

To do this will undoubtedly require an Act of Parliament; but before introducing ach an Act, my Lords think they ought to be satisfied that there are in fact sufficient rounds for making the proposed distinction between the London districts and the utport districts; and also that the outport district pilots have been so far injured by the peration of the section in question as to affect the efficiency of the service.

Since my Lords are not, as the matter now stands, satisfied on either of these points, hey cannot undertake to bring in a Bill for this purpose.

3. To exempt certain masters and mates of passenger vessels who were formerly xempt from compulsory pilotage, from the unforeseen operations of the 376th and 379th sections of the Merchant Shipping Act, which have imposed on those masters and ates, when in command of vessels carrying passengers, the obligation to employ pilots, lthough they are in possession of certificates granted by the Board of Trade under ect. 355.

Upon this point my Lords understand that the Elder Brethren agree with them, and hey had reason to believe that the Elder Brethren were prepared to submit for the anction of Her Majesty in Council, under sect. 332, a byelaw which would have the esired effect.

It appears to my Lords that the object in view may be perfectly well attained in this ay, and they think that it is for obvious reasons very undesirable to proceed by com- ulsory legislation where the Elder Brethren are already invested with ample powers to ive the desired relief. My Lords trust, therefore, that the Elder Brethren will carry nto effect the original proposal to proceed by order in Council.

4. To permit masters and mates who have been examined for certificates of pilotage n certain outport districts to pilot new vessels belonging to the same owners as, and of o greater draft of water than the vessels for which they have already been examined vithout passing a new examination, and again paying heavy fees for so doing.

As regards this point the Elder Brethren entirely concur in the justice of the proposed hange; but they state that they are not justified by the Statute in placing on the ertificates already granted the names of new vessels, and they suggest further legislation n the subject. It appears to my Lords, however, that the object which both the Elder Brethren and this Board wish to attain may be attained without legislation. It is com- etent to the Elder Brethren, under sect. 332 of the Merchant Shipping Act, to submit o Her Majesty in Council a byelaw exempting any ships or classes of ships from ompulsory pilotage, and there would be no difficulty in framing an order under that ection to meet the case in point. But the hardship of the present case may be met even more easily if the Trinity House will cause the officers in question to be re-examined *pro formâ*, and will then either endorse the names of the vessels on their old certificates, r grant them new certificates having those names inserted, without charging the rdinary examination fees.

My Lords trust that the Elder Brethren will in this case also see the expediency of granting relief, which they admit to be just, by their own voluntary act; and that they will thus make it unnecessary to apply for the interference of Parliament.

If it should be necessary to apply to Parliament it will be for serious consideration whether the exemption from compulsory pilotage conferred by certificates granted after examination should not be extended so as to embrace all ships of a draught of water not greater than that of the ships for which the holder has passed his examination.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 9.

Mr. P. H. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 7,400.)

Sir, Trinity House, London, 1st July 1857.

Having brought under the consideration of the Elder Brethren your letter of 20th ult., on the subject of the questions which have lately arisen with respect to compulsory pilotage, and stating the opinion entertained by the Lords of the Committee of Privy Council for Trade in respect of the manner in which the Elder Brethren have suggested that the changes which they considered necessary should be carried into effect;

I am directed to acquaint you, for their Lordships' information, that, as regards the two questions having reference to pilotage certificates, which their Lordships consider should

properly be effected by byelaws, the Elder Brethren are prepared to proceed therein, in accordance with their Lordships' views, and have accordingly directed me to request you will submit to their Lordships the accompanying draft byelaws, with a view to the obtainment of the consent of Her Majesty in Council thereto.

Referring to their Lordships' observations upon the proposition for altering the 379th section of the Merchant Shipping Act, 1854, by again confining the exemption from compulsory pilotage, so far as it relates to vessels named in the 3rd clause of that section, viz., to those trading to Boulogne, or any place in Europe north of Boulogne, to the London district, as it was previously to the passing of the said Act, by the 59th section of 6 Geo. 4. c. 124., I am now directed to forward for their Lordships' consideration the accompanying statement showing the substance of the reports received from the Sub-commissioners of Pilotage at the several outports relative to the effect which the exemption of vessels so trading has already produced, and is likely, when more generally known, to produce upon the earnings of the pilots and the efficiency of the service.

Their Lordships will observe that at some of the outports the injury sustained by the pilots is so great as to endanger the stability of the establishment, and that at others the exemption is found to have the effect of encouraging the employment of unlicensed persons to the prejudice of the pilots.

The Elder Brethren entertain serious apprehension that under these circumstances the pilots will be induced to relinquish their licences; in which case the interests of the ship-owner will be materially prejudiced; inasmuch as it follows, as a necessary consequence, that unless encouragement be given to persons to become licensed pilots, and to devote their time and attention to that service, the safety of vessels, when requiring pilotage assistance, will be seriously compromised.

Having regard, therefore, to the necessity of masters of vessels being assured of obtaining pilotage assistance when needed, and to the importance of the interests involved in the maintenance of efficient pilotage establishments, the Elder Brethren are still induced to hope that their Lordships will, upon further consideration of the subject, interpose to prevent the serious consequences above adverted to.

I have, &c.

The Secretary, Marine Department,
Board of Trade.

P. H. BERTHON.

Enclosure 1 in No. 9.

Whereas by the 379th Section of "The Merchant Shipping Act, 1854," it is enacted, that "the following ships, when not carrying passengers, shall be exempted from compulsory pilotage in the London district, and in the Trinity House outport districts; (that is to say,)

"(1) Ships employed in the coasting trade of the United Kingdom:
"(2) Ships of not more than 60 tons burthen:
"(3) Ships trading to Boulogne, or to any place in Europe, north of Boulogne:
"(4) Ships from Guernsey, Jersey, Alderney, Sark, or Man, which are wholly laden with stone being the produce of those islands:
"(5) Ships navigating within the limits of the port to which they belong.
"(6) Ships passing through the limits of any pilotage district, on their voyages between two places both situate out of such limits and not being bound to any place within such limits nor anchoring therein."

And whereas it is expedient that such ships as aforesaid shall be exempted from compulsory pilotage as well when carrying passengers as when not carrying passengers, and by the 332nd section of the said Act it is enacted that every pilotage authority shall have power by byelaw, made with the consent of Her Majesty in Council, to exempt the masters of any ships or of any classes of ships from being compelled to employ qualified pilots, and to annex any terms and conditions to such exemptions, and to revise and extend any exemptions now existing by virtue of the said Act upon such terms and conditions, and in such manner as may appear desirable to such authority: And whereas the Trinity house, as a pilotage authority under the said Act, has submitted for the consent of Her Majesty in Council the following byelaw, viz.,

That all ships mentioned in the 379th section of "The Merchant Shipping Act, 1854," shall be exempted from compulsory pilotage in the London district, and in the Trinity House out port districts as well when carrying passengers as when not carrying passengers, provided, as regards any such ship when carrying passengers, the master or his mate have a pilotage certificate in force for the time being, enabling such master or mate to pilot such ship within such district or districts granted under the provisions either of the 340th or of the 355th section of the said Act.

Enclosure 2 in No. 9.

Whereas by the 340th section of the Merchant Shipping Act, 1854, it is enacted that "The master or mate of any ship may, upon giving due notice and consenting to pay the usual expenses, apply to any pilotage authority to be examined as to his capacity to pilot the ship of which he is master or mate, or any one or more ships belonging to the same owner, within any part of the district over which such pilotage authority has jurisdiction, and such master or mate shall, if such authority thinks fit, thereupon be examined, and if found competent, a pilotage certificate shall be granted to him, containing his name, a specification of the ship or ships in respect of which he has been examined, and a description of the limits within which he is to pilot the same, such limits to be within such jurisdiction as aforesaid; and such certificate shall enable the person therein named to pilot the ship or any of the ships therein specified of which he is acting as master or mate at the time, but no other, within the limits therein described, without incurring any penalties for the non-employment of a qualified pilot:" And whereas by the 332nd section of that Act, it is enacted that "Every pilotage authority shall have power, by byelaw made with the consent of Her Majesty in Council, to exempt the masters of any ships, or of any classes of ships, from being compelled to employ qualified pilots, and to annex any terms or conditions to such exemptions, and to revise and extend any exemptions now existing by virtue of the said Act, or any other Act of Parliament, law or charter, or by usage, upon such terms and conditions and in such manner as may appear desirable to such authority:" d whereas it appears desirable to the Trinity House of Deptford Strond as a pilotage authority der the said Act, to revise and extend the exemptions now existing by virtue of the said Act upon terms and conditions and in manner herein-after mentioned, and the Trinity House have for that rpose submitted to Her Majesty in Council the following byelaw, viz.,

That any master or mate who holds a pilotage certificate granted by the said Trinity House under said Act enabling him to pilot any ship or ships shall be qualified to pilot any other ship or ships onging to the same owner or owners as the ship or ships for which his certificate was granted hin the limits described in such certificate without being compelled to employ a pilot on the lowing conditions, viz.,

That when the ship or ships which he is so qualified to pilot shall be of no greater draught of water n the ship or ships in respect of which his certificate was granted,—

And that the name and description of every ship which he is so qualified to pilot shall have been or with the consent of the said Trinity House, first added to or endorsed upon his certificate.

Enclosure 3 in No. 9.

bstance of the Reports received from the Sub-Commissioners of Pilotage at the Trinity House Outport Districts, relative to the introduction into the 3rd Clause of the 379th Section of the "Merchant Shipping Act, 1854," of the words "and in the Trinity House Outport Districts," upon the Interests of the pilots.

Aberdovey.—The exemption has not yet been claimed, but may be in course of time.

Beaumaris.—Exemption has been claimed.

Bridgwater.—The exemption has not yet been claimed.

Bridport.—Pilots have not yet suffered, nor are they likely to suffer (a bar harbour).

Carnarvon.—No claim of exemption has yet been made.

Carlisle.—Exemption will not affect the interests of the pilot.

Cowes.—The exemption has been claimed in one case only.

Colchester.—Pilot has not suffered, nor is he likely to.

Dartmouth.—The exemption has been claimed in repeated instances.

Exeter.—The interests of the pilots have not yet suffered.

Falmouth.—One claim of exemption has been made. If the exemption is to be construed to apply vessels calling for orders and receiving such orders for Boulogne and places north of the same, the erests of the pilots will be very materially affected.

Fleetwood.—No vessels trade to ports north of Boulogne.

Fowey.—Pilots' earnings affected to the extent of one third, although the exemption is not yet own to many masters of ships. Pilots are likely to suffer to such an extent as to destroy the ucement which they now have to follow their avocations. Nine-tenths of the foreign trade being Norway, Belgium, and Holland, the result will be that the pilots will seek other employment, and os, in the long winter nights, thick weather, and south-west gales, will be left to their sad fate, in sequence of the great discouragement which this law has inflicted on the pilots.

Gloucester.—Masters of vessels have not claimed exemption.

Harwich.—Exemption nearly deprives pilots of livelihood.

Holyhead.—Has affected the earnings of the pilots to the extent of one-fifth of their earnings.

Lowestoft.—More than one-third of the vessels trading to Boulogne, &c., have claimed exemption; the tendency of inducing masters of vessels to employ unlicensed men.

Maldon.—Will ultimately tend to the exclusion of pilots at the port.

Milford.—Pilots have suffered considerable loss (100*l.* in four months).

Neath.—Has not, nor is ever likely to have, any effect on the pilotage service of the district.

Newhaven.—Little trade, except in passenger ships. Pilots have not suffered.

Newport.—One-tenth of the trade over sea is to Boulogne and ports north thereof. The exemption generally claimed.

Padstow.—No claim of exemption has yet been made.

Plymouth.—Alteration materially affects the interests of the pilots.

Penzance.—Masters of vessels have not yet claimed the exemption, but the foreign trade being chiefly from ports north of Boulogne, the exemption will prove disastrous to the interests of the pilots.

Poole.—Exemption has not affected the interests of the pilots.

Portmadoc.—No claim for exemption has yet been made.

Portsmouth.—Exemption deprives the pilots of one-half their earnings; time must decide the ultimate effect it will have on the employment of pilots, inasmuch as the class of vessels hitherto, and at present employed as pilot vessels, cannot be maintained.

Rye.—Interests of the pilots have not suffered.

Scilly.—Only a few instances have occurred where the exemption has been claimed.

Shoreham.—A shifting bar harbour. Interests of the pilots have not suffered, nor are they likely to suffer.

Southampton.—No claim yet been made for exemption.

Teignmouth.—No claim yet been made for exemption.

Wells.—

Weymouth.—Pilots have not yet suffered much, but there is no doubt their interests will become materially affected on the enactment being generally known.

Woodbridge.—Exemption has not yet been claimed.

Yarmouth.—Pilots have suffered a loss of more than one-half their earnings, and are likely to be still greater sufferers; the probable effect on the pilotage service will be the breaking of it up entirely.

No. 10.

Mr. Farrer to the Secretary, Trinity House.

(No. 7,400.) Marine Department, Board of Trade,

Sir, 8th July 1857.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 1st inst., inclosing draft byelaws.

1st. For extending under certain conditions the exemptions from compulsory pilotage in the London district, and in the Trinity House outport districts under the 379th section of the Merchant Shipping Act, 1854, to all ships mentioned in that section, whether carrying passengers or not. And, 2nd, for extending under certain conditions to masters and mates duly licensed to pilot a ship or ships the privilege of piloting any other ship or ships belonging to the same owner or owners as the ship or ships named in his pilotage licence; and I am to acquaint you, for the information of the Elder Brethren of the Trinity House, that these byelaws appear to my Lords to be such as to effect the object in view, and that they will be submitted for Her Majesty's approval at the next Council.

As regard the observation of the Elder Brethren as to the effect already produced and the results which they apprehend from the exemption from compulsory pilotage in the outport districts of vessels trading to Boulogne and places in Europe north of Boulogne, my Lords cannot concur in the expediency of introducing a Bill to confine this exemption to the London district. There appears to my Lords to be no good reason so far as the difficulties of navigation are concerned, why vessels trading from London should be exempt, and vessels trading from other ports, such as Harwich and Lowestoft should be subject to compulsory pilotage, or why, if the obligation to take pilots is re enforced, it should not apply to London as well as to the outports.

If it is necessary to keep up a staff of pilots at the outports, and if a sufficient staff cannot be kept up without doing away with the exemption referred to, a case for legislation might possibly arise.

But before seeking to extend compulsory pilotage in a manner which primâ facie appears unreasonable, my Lords would think it their duty to learn the opinions of persons engaged or interested in trade and shipping, for whose sake the pilotage system exists and who must suffer if that system fails to be efficient.

I am, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 11.

Captain Hirste to the Secretary, Marine Department, Board of Trade.

(No. 7,857.) Chester and Holyhead Railway, Steam-boat Department, Holyhead

Sir, Superintendent's Office, 11th July 1857.

I beg leave respectfully to draw your attention to a paper relating to the demand of the Honourable the Trinity Board, that the officers of this Company's ship

ıould pay a second time, the pilotage fee of 3*l.* 17*s.* 0*d.* charged for their licence, before ey would be permitted to pilot the two vessels "Sea Nymph" and "Telegraph" cently purchased by the Company, which was, I am informed, submitted to you by e Hon. W. O. Stanley about the 13th of May last; and to request that you would vour me, for the information of my Directors, with the views of the Lords of the ommittee of Privy Council for Trade upon the question at issue.

The officers referred to have been compelled to pay the additional fees, which was ne under protest, a copy of which I beg to enclose.

I was instructed by my Directors to adopt this course, and then submit the whole case the Board of Trade.

I am, &c.
THOS. HIRSTE.

Enclosure in No. 11.

I WISH it to be clearly understood that in filling up this paper, I do so under protest, and as a ans of obtaining a licence to pilot this Company's vessels "Telegraph" and "Sea Nymph," the inity Board objecting to endorse my present certificate otherwise for these two vessels.

I protest against this proceeding on their part on the following grounds.

First. That I have been already examined and found qualified as a pilot for the Holyhead District, l possess the Board's certificate to that effect, and that I have successfully piloted the Company's sels for * and that there is no complaint against me as such, calling for a second mination and compelling me to pay fees a second time.

* Sic in orig.

Second. That the Board of Trade issue their certificates under the same Act without charging any s, and which certificates enable me to pilot any vessel being the property of the Chester and lyhead Railway Company, without reference to names.

The Dublin Ballast Board have endorsed my certificate immediately on applying to pilot the above sels, also without charge.

Third. That the fees charged by the Trinity Board are excessive, both as respects the first charge, l that demanded annually for renewal; the ordinary pilots being only charged one guinea, while ave been charged two guineas for the same privilege.

No. 12.

R. FARRER to CAPTAIN HIRSTE, Chester and Holyhead Railway Company, Holyhead.

(No. 7,857.) Marine Department, Board of Trade,
15th July 1857.

I AM directed by the Lords of the Committee of Privy Council for Trade to nowledge the receipt of your letter of the 11th inst. with its enclosure, on the subject the examination of masters and mates in the service of the Chester and Holyhead ilway Company, who have already obtained pilotage certificates, and I enclose for the ormation of the Directors of that Company copy of a letter which my Lords have ressed to the Hon. W. O. Stanley, in reply to his representation on the subject.

I have, &c.
T. H. FARRER.

Captain Hirste, Chester and Holyhead Railway Company, Holyhead.

Enclosure in No. 12.

MR. FARRER to the Honourable W. O. STANLEY, M.P., Traveller's Club.

(No. 7,400.) Marine Department, Board of Trade,
11th July 1857.

WITH reference to your application of the 14th May last, relative to the case of certain mates ne service of the Chester and Holyhead Railway Company who have obtained pilotage certificates the Trinity House, but who are not allowed to pilot new vessels belonging to the same owners out being examined afresh and paying fees for so doing, I am directed by the Lords of the mittee of Privy Council for Trade to inform you that they have been in communication with Trinity House, and find that the Elder Brethren concur with them in thinking that the necessity passing a fresh examination in these cases, is, if imposed by the letter, not consistent with the spirit ne Statute.

or the purpose of getting rid of the anomaly the Elder Brethren have, under the powers given

them by the 333rd section of the Act, prepared a new byelaw which will be submitted to Her Majesty at the next Council, and which will, my Lords believe, remove the grievance complained of.

A copy of the byelaw is enclosed.*

I have, &c.

The Hon. W. O. Stanley, M.P. T. H. Farrer.

No. 13.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 8,453.)

Sir, Trinity House, London, E.C., 29th July 1857.

The Elder Brethren having had under consideration that part of your letter of th 8th instant in which you state, with reference to their observations as to the effect alread produced and the results which they apprehend from the extension of the exemption fro compulsory pilotage to the Trinity House outport districts of vessels trading to Boulogn &c., that the Lords of the Committee of Privy Council for Trade cannot concur in the e pediency of introducing a Bill to confine that exemption to the London district, the appearing to their Lordships to be no good reason, as far as the difficulties of navigation a concerned, why vessels trading from London should be exempt, and vessels trading fro the outports, such as Harwich, Lowestoft, &c. should be subject to compulsory pilotag or why, if the obligation to take pilots is reimposed, it should not apply to London as well to the outports. I am directed to observe for their Lordships' consideration that there c be no doubt that the exemption which had always been enjoyed by vessels employed the particular trade in question in the London district was originally granted on t ground of the practical knowledge which the masters were supposed to have acquired their frequent passages up and down the river Thames, and that the trade between por in the north of Europe, and the outports being of a less regular description was n considered such as to furnish grounds for its exemption from the obligation to emp pilots therein.

The Elder Brethren are ready to admit that the grounds on which vessels in the tra in question were exempt under the former Act in the London district only applies such of the outports as are adverted to in your letter, viz., Harwich and Lowestoft a other ports on the east coast, but they are unable to see any satisfactory reason w vessels should be exempt in such of those ports as are under the jurisdiction of t Trinity House, and liable to take pilots when entering or departing from any pla within the jurisdiction of the Hull or Newcastle Pilotage Authorities; neither c they see why vessels should be exempted when casually employed in that particu trade, and entering Trinity House districts in the channel or elsewhere, and liab when trading to a port south of Boulogne, or when entering other than Trinity Hou districts.

The Elder Brethren have no desire to see the exemption withdrawn as respects vess in the London district, but bearing in mind that the masters of all vessels may, if they a qualified, avail themselves of the provisions of the 340th section of the Act, they contin of opinion that some remedial measure is necessary for the protection of the Trin House outport pilots from the consequences which they apprehend from the new extended exemption, and which they have had forcibly brought before them in memori recently presented by certain merchants, shipowners, and others connected with the p of Portsmouth and by the pilots licensed for that and the Cowes districts. Copies which I am directed to enclose for their Lordships' consideration.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

Enclosure 1 in No. 13.

To the Honourable the Elder Brethren of the Trinity House.

The humble Memorial of the undersigned Merchants, Shipowners, Masters of Vessels, Trad and others connected with the Port of Portsmouth.

Sheweth,

That the alteration in the laws relating to pilots which have recently been made, and reductions which have from time to time taken place in the rate of their remuneration have considerably affected their position, and in the opinion of your memorialists have deprived them

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* See Enclosure in No. 9.

the means of maintaining themselves and their families in such a position of respectability as persons whose functions are so responsible ought to occupy.

That the pilots of the port of Portsmouth have always been considered and treated as a respectable body of men, and have discharged the duties of their calling with readiness, efficiency, and fidelity, and have gained the good opinion and confidence of your memorialists and other persons interested in the shipping and trade of the port..

That your memorialists have heard of the complaints of the pilots, and have encouraged them to lay a statement of their grievances before your Honourable Board, in the hope that you will take the same into your favourable consideration and make such alterations in the regulations and rate of remuneration as may satisfy their reasonable requests.

That your memorialists have been informed and believe that the chief cause of complaint on the part of the pilots is the interpretation which has been put by your Honourable Board upon the 379th clause of the Merchant Shipping Act, with reference to the third exemption from pilotage therein named; it appears by a reference to this clause of the Act of Parliament that ships trading to Boulogne or to any place in Europe north of Boulogne are exempted from compulsory pilotage. Your memorialists believe that under the operation of this clause it will be contended that no ship trading to Portsmouth will be liable to compulsory pilotage, Portsmouth being a port in Europe north of Boulogne.

That in the opinion of your memorialists this exemption is wholly unnecessary, as the master or mate of any ship can, under the 340th clause of the Act, procure (if qualified) a certificate enabling him to pilot his own ship.

That your memorialists believe that it is essential for the safety of the vessels trading to this port and their cargoes, that a sufficient number of well qualified pilots should be connected with the port; that the services of such pilots can only be secured by their having the means of earning a respectable livelihood, and that if all compulsory pilotage is abolished your memorialists apprehend that in many cases disasters will occur in consequence of unqualified masters or others attempting to pilot ships into the port, and so your memorialists and others will suffer great loss.

Your memorialists therefore humbly pray that your Honourable Board will take the memorial of the pilots and this memorial into your favourable consideration, and adopt such measures in reference to such memorials as will effectually remove all causes of complaint and secure to the shipping interest and trade of the port the services of a sufficient number of pilots.

And your memorialists, as in duty bound, will ever pray.

(48 signatures.)

Enclosure 2 in No. 13.

To the Honourable the Elder Brethren of the Trinity House.

The humble Memorial of the undersigned Licensed Pilots belonging to the Port of Portsmouth.

Sheweth,

That the alterations in the laws relating to pilots which have been recently made, and the reductions which have from time to time taken place in the rate of remuneration to your memorialists, have very considerably reduced their income and deprived them of the means of maintaining themselves and their families in such a position of respectability as persons whose functions are so responsible ought to occupy.

That your memorialists and their predecessors, pilots of the port of Portsmouth, have always been considered and treated as a respectable body of men, and have ever striven to discharge the onerous and sometimes dangerous duties of their calling with readiness and fidelity, and have (they believe) gained the confidence and good opinion of the owners and masters of vessels trading to the port, and of the merchants carrying on business there.

That in the full belief that their complaint will receive a kind and attentive consideration at your hands, your memorialists have resolved to lay this statement of their grievances before your Honourable Board in the confident hope that it will lead to the amelioration of their condition, and to such a re-adjustment of the rate of remuneration to be paid to them, and if need be of the law itself, as will enable them to maintain their position as respectable members of society.

That your Honourable Board will find, on reference to the returns made to you by the Sub-commissioners of Pilotage, that the gross earnings of the pilots of this port for the three years ending 31st December 1856, were as follows, in the year 1854, 3,338*l.* 19*s.* 11½*d.*; in the year 1855, 4,401*l.* 3*s.*, and in the year 1856, 4,206*l.* 6*s.* 2½*d.*, making a total for the three years of 11,950*l.* 9*s* 2*d.* and an average for each year of 3,982*l.* 3*s.* 0¾*d.*, these returns including for the years 1854 and 1855 those for Chichester harbour.

That there are sixteen pilot vessels, forty-two pilots exclusive of those for Chichester Harbour, and twenty-six masters and others belonging to the pilot vessels, who all have to be supported out of the earnings of your memorialists.

That at least one-half of such earnings is required to remunerate the owners of such vessels and their masters and crews, leaving the other half for your memorialists, and yielding them an average income of 47*l.* 5*s.* 8*d.*

That out of such average income each of your memorialists has to pay annually for the renewal of his license and poundage on his earnings, together with boat hire and other incidental expenses, amounting altogether to at least 5*l.* 5*s.*, leaving 42*l.* as the net average income of each pilot.

That nearly all of your memorialists are married and have on an average a family of three children each, who with their respective wives have to be maintained out of their incomes.

That the average income as stated above is considerably more than it is likely to be during the present and future years. The returns for the last three years having, as your memorialists believe, been augmented by at least one-fourth on account of the increase of trade to the port caused by the war.

That your memorialists beg leave very respectfully to submit to your Honourable Board that their present depressed condition is caused—

First. By the fact that on ships returning to the port your memorialists are only paid half pilotage.

Secondly. By the operation of one of the rules sanctioned by your Honourable Board, the effect of which is to entitle vessels driven in by distress of weather to claim a deduction of one-fourth from the tabular rate of pilotage. The working of the table of rates as now framed is shown thus,—Supposing a vessel liable under ordinary circumstances to pay 5*s.* per foot, the reduction of one-fourth as above reduces the sum payable to the pilot to 3*s.* 9*d.* per foot; if the vessel returns to the port she is only liable to pay half the reduced rate, or 1*s.* 10¼*d.* per foot. If anchoring at St. Helens only half the last-mentioned rate is payable, namely 11¼*d.*; and by the table of rates if the vessel is boarded within two miles of the Buoys of Bembridge, the pilot is required to make a further deduction of 1*s.* a foot, absolutely leaving him without any remuneration whatever for his services.

Thirdly. The reductions made in the table of rates in the amount payable to the pilots for distance money in respect of ships under 15 feet draft of water, and the regulation which imposes upon the pilot the duty of getting a certificate from the master to entitle him to distance money, which your memorialists have very frequently found it impossible to procure from the masters of vessels, although their services have been accepted and rendered, the effect being that in the absence of such certificate your memorialists have often been compelled to lose their distance money altogether.

Fourthly. The operation of the 354th and 355th clauses of the Merchant Shipping Act, enabling masters or mates of home trade passenger ships who have received pilotage certificates to pilot their own vessels, your memorialists respectfully submit that these clauses in the Act of Parliament are most prejudicial to their interests, and afford great facilities for evading their services improperly, as the law points out no means by which pilots can ascertain whether persons alleging themselves to be licensed are so licensed. Your memorialists submit that if such masters or mates were required to produce their certificates on demand, and a list of persons so licensed, with the names of the ships to which their licences extend, was to be kept accessible to your memorialists and others, means would be placed within reach of your memorialists to protect themselves from any unlicensed person acting as pilot.

Fifthly. The absence of any regulation requiring vessels liable to compulsory pilotage to hoist any signal for a pilot; this might easily be remedied by a rule requiring such vessels to hoist a union jack when coming within pilot waters.

Sixthly. That in addition to the foregoing causes of complaint, your memorialists have now to submit to the consideration of your Honourable Board their chief grievance. They believe they have fairly and temperately stated their case thus far, and they desire to continue this statement in the same spirit. They have shown that even with the increased business brought to this port by the war, their average income is not more than 42*l.* a year, and they now have great cause for apprehending that it will suffer a still further reduction by the operation of another clause in the Act of Parliament under which claims to exemption have recently, for the first time, been made; they allude to the 379th clause, and to the third exemption from compulsory pilotage therein specified. The interpretation which your Honourable Board has placed upon this clause has filled them with alarm and dismay, as it will have the effect of depriving them of at least one-third of their remaining average income. A reference to the clause will show that ships trading to Boulogne, or to any place in Europe north of Boulogne, are exempted from compulsory pilotage; this class of shipping yields to your memorialists at least one-third of their income, and they beg most respectfully and urgently to press it upon the consideration of your Honourable Board, that if an enactment so ruinous in its consequences to your memorialists as this, be suffered to continue in force, their earnings will in future be reduced so materially as to render it utterly impossible for them to maintain themselves and families or to keep their vessels at sea. And they beg further to represent, that under the operation of this clause it may, and no doubt will be contended, that no ship trading to Portsmouth is liable to compulsory pilotage, Portsmouth being a port in Europe north of Boulogne. That the last-mentioned exemption appears to your memorialists to be wholly unnecessary, the master or mate of any ship having, by the 340th clause of the Act, the privilege of obtaining (if qualified) a certificate enabling him to pilot his own ship.

That in order more fully to explain the foregoing grievances to your Honourable Board, and to answer any inquiries or give any information that may be required, and also, respectfully to call your attention to other matters touching the rights and duties of your memorialists, they venture very respectfully and urgently to suggest that a deputation from their body should be permitted to wait upon your Honourable Board, and if that permission be given, they confidently believe that they will be able to convince you of the hardship of their case and of the necessity of some steps being taken for the removal of their complaints.

Your memorialists therefore humbly pray, that you will be pleased to take this memorial into your favourable consideration, and to adopt such measures in reference thereto as will effectually remove their causes of complaint, and particularly that you will consent to receive a deputation from their body for the purposes above stated.

And your memorialists, as in duty bound, will ever pray.

(36 signatures.)

Enclosure 3 in No. 13.

To the Honourable the Elder Brethren of the Trinity Board.

We, the pilots of the port of Cowes, beg most respectfully to memorialize your Honourable Board, and pray that we may be permitted to represent to you certain evils of which we have to complain, and which press most grievously upon us.

Craving your gracious regard, we would call your attention to the fact that the returns from the port of Cowes, during the three years ending December 31, 1856, show the amount of the pilots' earnings during that time to have been as follows:—In 1854, 3,395*l.* 18*s.*; in 1855, 3,577*l.* 19*s.* 3*d.*; in 1856, 3,809*l.* 5*s.* 7*d.*; making the total amount 10,782*l.* 12*s.* 10*d.*, and showing an average of 3,594*l.* 4*s.* 3¾*d.*; that there are licensed from the port 52 pilots, who, with their cutters (15 in number) and their crews, make 98 shares, thus giving to each pilot only 36*l.* 13*s.* 6*d.*, from which sum a deduction of at least 12 per cent. may be allowed to defray the costs of annually renewing his licence, boat hire, and other incidental expenses, reducing his actual income to 32*l.* 5*s.* 6*d.* We find that of the 52 pilots 40 have wives, and the children average two to each pilot.

Having thus laid before your Honourable Board our position, we beg respectfully to point out to you the causes which, we believe, have placed us in our present depressed state, and these are—

First. The reduction of half the pilotage on ships returning to port.

Secondly. The introduction, in 1844, of a clause into our piloting regulations, which prohibits pilots of this district from taking ships, as formerly, to Southampton or from Southampton to sea, excepting no pilot of that port is ready to take charge.

Thirdly. The reduction of one-fourth of the ordinary pilotage which is made on all ships not actually bound in for orders or to discharge, making their pilotage 3*s.* 9*d.* per foot; and, though this reduction has been made, yet ships returning pay only half of the reduced rate, making their pilotage but 1*s.* 10½*d.* per foot, and if they anchor at St. Helens Roads only 11¼*d.* per foot; while, further, if boarding ships within two miles of the Buoys off Bembridge, or three miles of the Needles Point, the Act demands a further reduction of 1*s.* per foot, which it must be perceived is impossible in return ships anchoring and remaining in St. Helens Roads.

Fourthly. The regulation requiring a reduction of one-third of the regular pilotage on all ships towed by steam.

Fifthly. The regulations in respect of distance money, as affecting pilots in two ways. First, with regard to the reduction on ships under 15 feet draft of water; secondly, in consequence of the almost utter impossibility of complying with the conditions required.

Sixthly. The exemption of certain ships, by giving masters and mates pilots' certificates, and allowing them to conduct their own ships into ports in this district, and the opportunity which is thus afforded of evading the pilot's services when really liable, as we have no means of ascertaining if the person in charge possesses the requisite certificate. We beg here to observe, that, were the persons qualified to act, to wear a distinguishing mark or number, this difficulty would be obviated.

Having already shown by statistical returns, that the average amount of the pilots' earnings (allowing the deduction necessary for unavoidable expenses) does not much exceed 30*l.*, it is with feelings of the utmost surprise and dismay we find by the present Act, all ships trading to Boulogne, and to all ports in Europe north of Boulogne, are exempt from pilotage.

As this class of shipping forms a very considerable item in our returns, we would respectfully, but most urgently, press it on the consideration of your Honourable Board, that if an enactment so ruinous in its consequences to us be allowed to continue in force, our earnings will in future be reduced to an amount so small, that it will be utterly impossible we and our families could subsist or our cutters be kept at sea. And with reference to this subject, your memorialists think it necessary here to remark that although the enactment was made under the Merchant Shipping Act of 1854, it has not, until now, been brought into operation, sanctioned by a reply received from your Honourable Board in consequence of an inquiry addressed to you.

In consequence of complaints from steamships of their inability to procure pilots, which have reached your Honourable Board, we feel called on in our own exculpation to observe, that we believe we may without presumption state it is a generally admitted fact, that no pilots in the English Channel are found more constantly at sea than those of this district, and we feel we need not shrink from the comparison as to our competency for the discharge of our duties with any body of men in the piloting employ.

We do not believe that a cause for complaint would exist, if ships when bound to the port were to display a signal on arriving within the limits of our district. We would, therefore, most earnestly pray that a regulation to that effect may be made, and that the first duly qualified pilot offering his services within the limits specified may be accepted.

And further your petitioners respectfully supplicate that a deputation from our body may be permitted to wait on your Honourable Board, and show more fully than can here be pointed out those evils of which we more especially complain, and the measures which, if adopted, we believe would most effectually ameliorate our condition.

In conclusion, your memorialists beg to add, that, as from their early youth their lives are devoted to their profession, and all their little property is embarked in it, they trust your Honourable Board will perceive it is only in a matter of the most imperative necessity, and as affecting their dearest interests, that they venture to approach you, and as they look to you as their protectors, and the guardians of their interests, they trust your Honourable Board will be pleased to accord to their appeal your full and gracious consideration, and make such regulations as shall place us in a capacity to obtain for

ourselves and families an honest subsistence. And while in our improved condition we experience the benefits of your clemency, our diligence and unfailing attention to our duty shall prove us not unmindful or unworthy of your favours.

(40 signatures.)

No. 14.

Mr. Farrer to the Secretary of Trinity House.

(No. 8,481.) Marine Department, Board of Trade,

Sir, 7th August 1857.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 29th ult., with its inclosures, on the subject of the Trinity House outport pilotage and the effect which has been produced on the earnings of pilots employed in that service by the exemption from compulsory pilotage of ships bound to ports north of Boulogne.

Looking to the statements containing in the memorials from Portsmouth and Cowes it appears to my Lords,

1st. That as yet the remuneration of the pilots at the above places has not diminished.

2ndly. That the alleged causes of probable diminution of earnings are manifold, and not by any means confined to the exemption from pilotage of ships trading north of Boulogne.

3rdly. That the construction of the exemption suggested by the pilots of Portsmouth in their memorial, namely, that it extends to ports in England north of Boulogne, is altogether erroneous.

Under these circumstances my Lords see no reason to alter the opinion they have already expressed against again narrowing the exemption which was extended by the Merchant Shipping Act.

The essential point is whether at Cowes or Portsmouth or at any other place it is necessary to raise the pay in order to secure the efficiency of the pilots.

In order to ascertain this point it will be desirable to see whether the anticipation of diminished earnings (which is certainly not founded on the experience of the last two years) is justified by the facts in present or in future years, and if so whether the diminution is so great as to render some change in the rates necessary. If this should prove to be the case it will be a matter for consideration whether it may not be possible to raise the earnings of the pilots by increasing the rates payable by those ships which do require pilots rather than by compelling ships to employ pilots which do not require their services.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 15.

Mr. Farrer (1) to the Secretary of the Steam-ship Owners' Association, and to (2) Captain Phillips of the General Steam Navigation Company.

(No. 7,400.) Marine Department, Board of Trade,

Sir, 13th July 1857.

Referring (1) [to your letters of the 20th March and 18th May last, on the subject of a grievance to which steam vessels carrying passengers in the home trade have been subject, in consequence of the operation of certain clauses concerning compulsory pilotage in the Merchant Shipping Act, 1854,] (2) [to your letter of the 16th March, relating to the question whether you can be compelled to employ a pilot notwithstanding you hold a pilotage certificate from this Board,] I am directed by the Lords of the Committee of Privy Council for Trade, to call attention to the following statement, from which it will appear that steps have been taken which will, my Lords believe, effectually remove the grievance.

The facts are as follows: by the Merchant Shipping Act, 1854, it was intended to introduce a general obligation on every passenger ship in the home trade to employ a qualified pilot unless the master or mate possess certificates showing that they are qualified to pilot their own vessels.

This obligation is embodied in the 354th sect. of the Act.

To prevent it from pressing unduly on masters and mates who were already in the habit of piloting their own vessels, the 355th sect. was added, by which the Board of Trade are enabled, under certain circumstances therein mentioned, to grant certificates

of pilotage service which have the effect of relieving the holders from the obligation to employ a pilot contained in the preceding sect.

By the 366th sect. section, the special provisions of former Acts, defining the pilotage districts under the Trinity House in which pilotage is to be compulsory are re-enacted; and by section 379 the exemptions from this Trinity House compulsory pilotage, which previously existed, are continued. In this 379th sect. the words "when not carrying passengers" were introduced in order to prevent the exemption contained in this sect. from doing away with the general obligation concerning home trade passenger ships contained in the 354th sect. In adding these words it appears to have been overlooked that clause 376 contains an obligation to employ pilots distinct from and in addition to the obligation in section 354; and that the exemption in sect. 355 extends only to the latter and not to the former obligation. Consequently a man who holds a pilotage certificate of service under sect. 355, when navigating a passenger ship in Trinity House districts, though not required to employ a pilot under sect. 354, is compelled to do so under sect. 376, and is not exempted by sect. 379.

The thing to be done is, therefore, to extend the exemption given by sect. 379 to vessels carrying passengers when the masters or mates have certificates under sect. 354.

The Elder Brethren have accordingly, on the suggestion of this Board, prepared a bye-law under the 333rd sect. of the Act, which will, my Lords believe, entirely remove the grievance complained of.

A copy of this byelaw is enclosed,* and I am to state that an Order in Council for giving effect to it will be submitted for Her Majesty's approval at the next Council.

I have, &c.

(1) The Secretary, Steam-ship Owners' Association. T. H. FARRER.
(2) Captain Phillips, General Steam Navigation Company.

No. 16.

The Secretary of the Steam-ship Owners' Association to Mr. Farrer.

(No. 8,453.) Steam-ship Owners' Association Offices,
60, Fenchurch Street, London, 28th July 1857.

SIR,

I am directed by the Committee of this Association to request that you will have the goodness to convey to the Lords of the Committee of Privy Council for Trade, the expression of the grateful sense entertained by the Committee of the great service their Lordships have rendered to the steam-shipping interests of this port by their successful exertions in procuring the framing by the Trinity House of the byelaw, of which their Lordships have favoured them with a copy.

The Committee desire me at the same time to remark, that, notwithstanding their Lordships' intention that the byelaw should be, and their impression that it is so framed as to remove the grievance complained of in my letter of the 20th March last, there appears to be some doubt as to whether its provisions will exempt all those masters of home passenger ships who have obtained pilotage certificates either from their Lordships or the Trinity House, from the necessity of employing pilots in the London district.

Upon this point the Committee would respectfully request to be favoured with their Lordships' opinion, as, if their doubts be well founded, the anomaly will continue to exist of the same masters being pronounced competent to pilot their ships though the south channel of the Thames, when trading with the Channel Islands or employed in the coasting trade, and incompetent to take them through the same channel, when trading with Brest or Havre, and the grievance complained of will, as regards some of the companies belonging to this Association, remain unremoved.

I am, &c.

T. H. Farrer, Esq., W. J. MORGAN.
Board of Trade.

No. 17.

Mr. Farrer to the Secretary of the Steam-ship Owners' Association.

(No. 8,453.) Marine Department, Board of Trade,
7th August 1857.

SIR,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 28th instant on the subject of the recent

* See Enclosure in No. 9.

byelaws made by the Elder Brethren of the Trinity House for extending the exemptions from compulsory pilotage under sect. 379 of the Merchant Shipping Act, 1854, and requesting the opinion of my Lords whether the byelaw will have the effect of exempting all those masters of home trade passenger ships who have obtained pilotage certificates, either from the Board or from the Trinity House, from the necessity of employing pilots in the London district.

In reply I am to acquaint you, for the information of the Committee of the Steam-ship Owners' Association, that the byelaw was passed with the view of carrying into effect the intention of the Act.

That intention was, first, to exempt all masters and mates from compulsory pilotage, who upon examination obtain certificates from the Trinity House; and, secondly, to prevent existing masters and mates who were, before the passing of the Act, in the habit of piloting their own ships, from being subjected to a new obligation to employ pilots under those clauses of the Act which relate to passenger vessels. Neither by the Act nor by the byelaw was it intended that the exemptions should be carried further.

Under the Act of 6 Geo. 4, repealed in 1854, vessels trading from London to ports north of Boulogne were exempted from the obligation to take pilots.

This exemption it was intended to continue by the Merchant Shipping Act, 1854, and to give it full effect, so far as relates to certain passenger ships which were by the words of the Act inadvertently excluded from the exemption, and which had previously to the passing of the Act enjoyed the benefit of the exemption, the late byelaw of the Trinity House was passed.

But the exemption under the former Act did not extend to vessels trading from London to ports south of Boulogne, and whatever may be the merits of the distinction it was not intended by the Merchant Shipping Act or by the byelaw to extend it to those vessels. The Committee will remember that it is now within the power of the masters or mates of these vessels to obtain certificates from the Trinity House upon examination for all pilotage districts, which will give them the benefit of exemption which they would not have had under the Act 6 Geo. 4. c. 124., and that there is no practical hardship in requiring them to pass this examination.

I have, &c.
T. H. FARRER.

The Secretary,
Steam-ship Owners' Association.

No. 18.

Mr. Farrer to the Secretary, Trinity House.

(No. 1,342.) Marine Department, Board of Trade,
9th February 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the accompanying copy of a letter from the Shipowners' Society of North Shields complaining of the operation of the Pilotage Act with regard to the pilotage of vessels in ballast.

My Lords have not overlooked former correspondence with the Trinity House upon this subject, but before replying to the Shipowners' Society they will be glad to receive any observations which the Elder Brethren may have to offer.

I have, &c.
T. H. FARRER.

The Secretary, Trinity House.

Enclosure in No. 18.

Shipowners' Society, North Shields, Feb. 1, 1859.

Sir,

The Shipowners' Society here having observed that the memorial of the Shipowners to Her Majesty the Queen has been referred to the Board of Trade, they beg most respectfully to call your attention to the Pilotage Act as at present existing, many parts of which much need amendment, more especially the provision which requires that vessels which have discharged a cargo in London from certain ports abroad, shall, if leaving London in ballast for any port of the United Kingdom, take a pilot down the Thames, and through the channels at its mouth.

Now, the Shipowners' Society would submit for your consideration the peculiar hardship of this requirement; the vessel being in ballast, and earning no freight, ought to be allowed to take a pilot or not, as the captain may decide, also no interest but that of the owner being at stake, he is the only party who can justly determine the question.

The Shipowners therefore respectfully submit that they ought to be at once relieved from this unjust tax, and that in future ships in ballast may be exempted from taking pilots.

I am, &c.

The Secretary, Board of Trade. ROBERT POW, Chairman.

No. 19.

Mr. FARRER to ROBT. POW, Esq., SHIPOWNERS' SOCIETY, NORTH SHIELDS.

(No. 2,239.) Marine Department, Board of Trade,

SIR, 1st March 1859.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 1st inst., on behalf of the Shipowners' Society of North Shields, complaining of the operation of the pilotage law with regard to vessels in ballast, and I am to inform you that my Lords having referred it to the Trinity House, that body have made a reply, of which I enclose a copy, for the information of the Shipowners' Society.

I have, &c.

Robt. Pow, Esq., Shipowners' Society, North Shields. T. H. FARRER.

Enclosure in No. 19.

SIR, Trinity House, London, E.C., 22nd Feb. 1859.

HAVING brought under the notice of the Elder Brethren your letter of the 9th instant transmitting a copy of a letter from the Shipowners' Society of North Shields, relative to vessels in ballast, and signifying that the Lords of the Committee of Privy Council for Trade before replying thereto would be glad to receive any observations the Elder Brethren may have to offer thereon; I am directed to acquaint you for their Lordships' information, that the Elder Brethren are of opinion, that there is no good ground of complaint in respect of the pilotage of these vessels.

The master or owner of a vessel about to proceed from one port in the United Kingdom to another for the purpose of taking on board cargo for a third port also in the United Kingdom, is enabled to obtain a certificate under the recent byelaws, exempting his vessel from pilotage in any district over which the Trinity House have jurisdiction, and the master or mate of any vessel may, if on examination he should be found qualified so to do, obtain a certificate enabling him to pilot the vessel of which he is master or mate, under the 340th section of the Merchant Shipping Act, 1854.

With reference to the remark in the letter of the Shipowners' Society that "no interest but that of the shipowner is at stake" when vessels are navigated in ballast, I am directed to submit that not only are the lives of the crews of these vessels worthy of consideration, but that ships being generally insured the interest of the insurers are as much or even more at stake than those of the owners.

In conclusion, I am directed to observe that whatever exemption is granted to the British ships must also be conceded to ships belonging to nations between which and this country treaties of reciprocity exist, which would practically lead to the employment of unqualified and irresponsible persons as pilots, and occasion numerous casualties and constant litigation.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No. 20.

MR. PEARSON to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 1,887.)

SIR, 5, Clarke Terrace, Sunderland, 12th February 1859.

I BEG to submit the following case to the notice of the Hon. Board of Trade, Marine Department, and I have most respectfully to request the favour of the Board's decision thereon.

My vessel, viz., the schooner "Dorothy," of London, 128 tons register, official No. 19,883, when on her return passage as a collier from Rouen in ballast, while lying at anchor in Yarmouth Roads, and drawing 7½ feet water, on the 14th of January 1859, was hailed by a pilot who offered his services, which were not required, nor was he engaged.

The said pilot has sent me a letter claiming 1*l.* 7*s.* 6*d.* for pilotage, being at the rate of 2*s.* 6*d.* per foot on 11 feet, which is 3½ feet above the vessel's draught of water when in ballast.

I beg most respectfully to inquire, if the law requires such a vessel to employ a pilot on passing through Yarmouth Roads? or to pay a pilot who may offer his services, though not employed? and if so, is a pilot entitled to charge upon 11 feet for a vessel drawing only 7½ feet?

As I am threatened with proceedings to recover payment in the event of a refusal, I respectfully solicit the information of the Board, as the highest authority on the points in question as above described.

An answer at the Board's earliest convenience will be esteemed as a great favour, and will greatly oblige,

Yours, &c.
THOMAS PEARSON.

To the Secretary, Marine Department,
Board of Trade.

No. 21.

Mr. Farrer to Mr. Pearson.

(No. 1,887.)

Marine Department, Board of Trade,
15th February 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to inform you, in reply to your communication of the 14th inst., that the question which you ask is a question of law arising upon the construction of an Act of Parliament which my Lords have no power to decide, and on which they can therefore only refer you to your legal adviser.

I have, &c.
T. H. FARRER.

Thomas Pearson, Esq.,
5, Clarke Terrace, Sutherland.

No. 22.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 2,585.)

Trinity House, London, E.C.,
3rd March 1859.

Sir,

It being considered desirable that certain alterations should be made in the rates to be received by pilots licensed for the Dartmouth, Falmouth, and Weymouth districts, and that the powers or privileges of the pilots licensed for the first-named district should be limited, I am directed to transmit the accompanying byelaws which have been prepared with that object pursuant to the provisions of the 333rd sect. of the "Merchant Shipping Act, 1854," and to acquaint you that, should the Lords of the Committee of Privy Council for Trade see no objection to these amended rates, the Elder Brethren propose advertising them in the manner directed by their Lordships on the occasion of the revision of those established for the Exeter district, prior to their being submitted for the consent of Her Majesty in Council.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Enclosure 1 in No. 22.

Whereas by the 333rd section of the "Merchant Shipping Act, 1854," it is enacted that, subject to the provisions contained in the 5th part of that Act, it shall be lawful for every pilotage authority, by byelaw made with the consent of Her Majesty in Council, from time to time, to do within its districts all or any of the things specified in that behalf in the said section.

And whereas, the Trinity House being the pilotage authority under the said Act for the Trinity House out-port district, called the Weymouth district, the limits whereof are from St. Alban's Head to Lyme, and *vice versâ*, and to and from and into and out of all ports and places within those limits has submitted for the consent of Her Majesty in Council the byelaw, a copy whereof is set forth in the schedule hereunto annexed, with respect to the pilotage of the said Weymouth district.

And whereas it has been made to appear to Her Majesty that the said byelaw is proper and reasonable; now therefore, Her Majesty, by virtue of the power vested in Her by the said recited Act, and by and with the advice of Her Privy Council, is pleased to approve and doth hereby approve of and signify Her consent to the said byelaw as a byelaw of the said Trinity House, with respect to the pilotage of the said Weymouth district schedule to which the foregoing order refers.

From and after the expiration of ten days from the publication in the "London Gazette" of the order signifying the consent of Her Majesty in Council to this byelaw, there shall be paid to all Trinity House pilots for all ships passing through the limits of the Weymouth district, the limits whereof are from St. Alban's Head to Lyme, and *vice versâ*, and to and from and into and out of all

ports and places within those limits, such dues in respect of their pilotage services as are specified in the table following:—

TABLE of the Rates of Pilotage for piloting Ships within the Weymouth District.

From.	Into.	Under Eight Feet.	From Eight Feet to Ten Feet.	Above Ten Feet.
		Per Foot. s. d.	Per Foot. s. d.	Per Foot. s. d.
A line drawn from Lulworth to the outer part of the Race or Shambles.	Weymouth or Portland Roads or Bay -	2 0	2 6	3 0
A reduction of two-thirds to be made in the above rates on Vessels putting into the Harbour of Refuge at Portland for shelter only.				
Weymouth or Portland Roads or Bay -	Weymouth Harbour - - -	2 0	2 6	3 0
Sea - - - - - -	Lyme Harbour - - - -	2 0	2 6	3 0

The same rate of pilotage to be paid outwards.

Ships not having British registers are to pay one-fourth more than ships having British registers, except when such first-mentioned ships shall, by any order of Her Majesty's most Honourable Privy Council, be privileged to enter the ports of this Kingdom, upon paying the same duties of tonnage as are paid by British ships, in which case such ships and vessels not having British registers shall pay the like rates of pilotage only as are payable by ships having British registers; the said surplus rate chargeable on unprivileged foreign vessels is to be paid to the collector of this Corporation's light duties at the custom house at Weymouth.

The pilot of any vessel shall, if required by the owner, or master only, provide a boat, with four men to attend her from the roads to the quay, or from the quay to the roads, to tow her in or out, or carry ropes on shore, or to the posts, &c., as may be necessary, for which service each man is to be paid 4*s.* per tide; the owner of the boat to be paid the same as a man.

A pilot taken on board at sea, shall be entitled to the following additional pay, provided a perfect understanding shall have been come to between him and the master of the vessel that his services are required, and that he is to receive such additional pay; and the same shall have been recorded in the log book of his pilot cutter, and in that of the vessel, and a certificate thereof shall have been given him by the master.

From St. Alban's Head or Bill of Portland, to off Bridport or Lyme	£2	2 0
If 3 leagues from the limits of Weymouth, Bridport, or Lyme -	3	3 0
6 ditto ditto -	4	4 0
10 ditto ditto -	6	6 0

Encl. 2 in No. 22.

Whereas by the 333rd sect. of the "Merchant Shipping Act, 1854," it is enacted that, subject to the provisions contained in the 5th part of that Act, it shall be lawful for every pilotage authority, by byelaw made with the consent of Her Majesty in Council from time to time, to do within its districts all or any of the things specified in that behalf in the said section.

And whereas the Trinity House, being the pilotage authority under the said Act for the Trinity House outport districts, called the Dartmouth districts, the limits whereof are from Bob's Nose to the Start, and *vice versâ*, and into and out of all ports and places within those limits, has submitted for the consent of Her Majesty in Council, the byelaw a copy whereof is set forth in the schedule hereunto annexed with respect to the pilotage of the said Dartmouth district.

And whereas it has been made to appear to Her Majesty that the said byelaw is proper and reasonable; now, therefore, Her Majesty, by virtue of the power vested in Her by the said recited Act and by and with the advice of Her Privy Council, is pleased to approve, and doth hereby approve of and signify Her consent to the said byelaw as a byelaw of the said Trinity House with respect to the pilotage of the said Dartmouth district.

Schedule to which the foregoing order refers.

From and after the expiration of ten days from the publication in the "London Gazette" of the order signifying the consent of Her Majesty in Council to this byelaw there shall be paid to all Trinity House pilots for all ships passing through the limits of the Dartmouth districts, the limits whereof are from Bob's Nose to the Start and *vice versâ*, and into and out of all ports and places within those limits, such dues in respect of their pilotage services as are specified in the table following:—

RATES of PILOTAGE for PILOTING SHIPS within the DARTMOUTH DISTRICT.

All British ships, if boarded without the run of the Mewstone East, or the Blackstone West, are to pay as follows for the pilotage into,—

	Per Foot. s. d.
Dartmouth Harbour, viz:—	
Ships drawing 10 feet water and under - - -	- 2 6
10 to 12 feet - - - -	- 3 0
12 to 14 feet - - - -	- 3 6
14 to 16 feet - - - -	- 4 0
16 feet and upwards - - -	- 5 0

If boarded within the above named line they are to pay one quarter part less.

If boarded within the Castle they are to pay only one half the above-named rates, subject to the

circumstances of weather, &c., under which the service may be performed, which circumstances are to be considered and allowed for by the sub-commissioners.

All British ships, if boarded without the run of Bob's Nose, or Berry Head, are to pay as follows for the pilotage into the harbours of,—

Brixham or Torquay, viz.—	Per Foot. s.	d.
Ships drawing 10 feet water and under	1	6
10 to 12 feet	2	0
12 to 14 feet	2	6
14 to 16 feet	3	0
16 feet and upwards	3	6

If boarded within the above-named line they are to pay one quarter part less.

If boarded half a mile only from the outer piers, vessels of all sizes are to pay one shilling per foot of their draught of water.

The pilotage to Torbay is not compulsory, but should the master choose to employ a pilot to the anchorage therein, the pilotage is to be two thirds less than that for the harbours of Brixham or Torquay.

The pilotage out of the harbours is to be in all cases one third less than the inward pilotage.

Ships not having British registers are to pay one fourth more than ships having British registers, except when such first-mentioned ships shall, by any order of Her Majesty's most Honourable Privy Council, be privileged to enter the ports of this kingdom, upon paying the same duties of tonnage as are paid by British ships, in which case such ships and vessels not having British registers shall pay the like rates of pilotage only as are payable by ships having British registers;—the said surplus rate chargeable on unprivileged foreign vessels is to be paid to the collector of this Corporation's light duties at the custom house, Dartmouth.

Masters of ships taking a pilot at sea, viz.: two leagues or more from the harbour's mouth, are to pay according to circumstances attending the hazard run, assistance required, &c., which is to be regulated, in case of dispute, by the sub-commissioners. The pilot is to provide a proper tow-boat and crew consisting of at least four men, for whose services he shall be allowed to charge 2*s.* 6*d.* per man per day, in addition to the rate of pilotage;—and in case of dispute the same shall be settled by the sub-commissioners, and the assistants rewarded according to the risk, time, and trouble.

Enclosure 3 in No. 22.

WHEREAS by the 333rd section of the Merchant Shipping Act, 1854, it is enacted that, subject to the provisions contained in the 5th part of that Act, it shall be lawful for every pilotage authority by byelaw made with the consent of Her Majesty in Council, from time to time to do within its districts all or any of the things specified in that behalf in the said section.

And whereas the Trinity House, being the pilotage authority under the said Act for the Trinity House out-port district called the Falmouth district, the limits whereof are from the Dodman to the Lizard and *vice versâ*, and to and from and into and out of all ports and places within those limits has submitted for the consent of Her Majesty in Council the byelaw, a copy whereof is set forth in the Schedule hereunto annexed, with respect to the pilotage of the said Falmouth district.

And whereas it has been made to appear to Her Majesty that the said byelaw is proper and reasonable; now therefore Her Majesty by virtue of the power vested in Her by the said recited Act, and by and with the advice of Her Privy Council, is pleased to approve, and doth hereby approve of and signify Her consent to the said byelaw as a byelaw of the said Trinity House with respect to the pilotage of the said Falmouth district.

SCHEDULE to which the foregoing Order refers.

From and after the expiration of ten days from the publication in the "London Gazette" of the Order signifying the Consent of Her Majesty in Council to this byelaw, there shall be paid to all Trinity House pilots for all ships passing through the limits of the Falmouth district, the limits whereof are from the Dodman to the Lizard and *vice versâ*, and to and from and into and out of all ports and places within those limits, such dues in respect of their pilotage services as are specified in the table following.

TABLE of the Rates of Pilotage for Piloting Ships within the Falmouth District.

From.	To.	Eight Feet and under.	8 to 10	11	12.	13.	14.	15.	16.	17.	1	19.	20.	21.	22.
		s. *d.*	*s.*	*s.* *d.*	*s.* *d.*	*s.*	*s.*	*s.*	*s.* *d.*	*s.* *d.*	*s.*	*s.*	*s.*	*s.*	*s.* *d.*
Sea and *vice versâ*	Within an imaginary line drawn from the Block House on Pendennis Point to the Lighthouse on St. Anthony Point.	21 0	26	31 0	37 0	40	44	48	53 0	59 0	66	74	83	92	105 0
Ditto ditto	An anchorage outside such imaginary line.	10 6	13	15 6	18 6	20	22	24	26 6	28 6	33	37	41	46	52 6
Ditto ditto	Helford Harbour	18 0	21	24 0	26 0	30	33	37	41 0	46 0	53	—	—	—	—
Carrick Roads, and *vice versâ*	Falmouth and St. Mawe's Harbours, St. Just Pool, the outer anchorage, and Truro.	One shilling and sixpence per foot of the draught of water.													

A pilot taken on board at sea shall be entitled to the following additional pay, provided a perfect understanding shall have been come to between him and the master of the vessel that his services are accepted, and that he is to receive such additional pay, and the same shall have been recorded in the log book of his pilot cutter, as well as in that of the vessel, and a certificate thereof shall have been given him by the master, viz. :—

	On vessels under 200 tons.			On vessels of 200 tons and under 500.			On vessels of 500 tons and upwards.		
	£	s.	d.	£	s.	d.	£	s.	d.
If taken on board without a line drawn from the Manacles to the Dodman - - - - - -	0	10	6	1	1	0	2	2	0
If taken on board off the Lizard or in the parallel thereof, or meeting a vessel there and running before her, not being able to be put on board - - - - -	1	1	0	2	2	0	3	3	0

Ships not having British registers are to pay one fourth more than ships having British registers, except when such first mentioned ships shall, by any order of Her Majesty's most Honourable Privy Council, be privileged to enter the ports of this kingdom, upon paying the same duties of tonnage as are paid by British ships, in which case such ships and vessels not having British registers, shall pay the like rates of pilotage only as are payable by ships having British registers; the said surplus rate, chargeable on unprivileged foreign vessels, is to be paid to the collector of this Corporation's light duties at the custom house, Falmouth.

N.B.—No allowance for a pilot going on board a ship in the harbour to take her out, except in extremely bad weather, or when ships are on shore, or making signals of distress, in which cases a reasonable compensation is to be made.

All vessels belonging to the port of Truro, bound to or from foreign parts, including Guernsey, Jersey, Alderney, or Sark, are to pay no more than one-half the above rates of pilotage when navigating within the limits of the Falmouth district on their passage to or from Truro. The rate of 1*s.* 6*d.* per foot for subsequent removal remaining unaltered.

No. 23.

MR. FARRER to the SECRETARY, TRINITY HOUSE.

(No. 2,585.) Marine Department, Board of Trade,
12th March 1859.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 3rd instant, transmitting certain byelaws that have been prepared by the Elder Brethren of the Trinity House for altering the rates to be received by pilots licensed for the Dartmouth, Falmouth, and Weymouth districts, and for limiting the powers or privileges of the pilots licensed for the Dartmouth district.

My Lords think that, according to the 334th sect. of the Merchant Shipping Act, 1854, some publication is necessary; and they wish to suggest the following practice, which has been found very convenient in the analogous case of rates levied under the Burgh Harbours (Scotland) Act, 1853.

The Elder Brethren should cause the proposed byelaws to be published by, say two advertisements in some local papers, and also by means of a notice to be posted on the door of the custom house at each of the ports in question.

The advertisement and notice should set forth that if any person or persons object to any of the byelaws, they should forward their objections to the Trinity House.

The byelaws, as finally decided on by the Elder Brethren, with any objections which have been made and any observations the Elder Brethren have to offer, should then be forwarded to this Board in order that they may, if there should apppear to be no reason to the contrary, be laid before Her Majesty in Council.

As regards the proposed Falmouth byelaw my Lords think it right to state that if the effect is to extend the limits of compulsory pilotage, they believe as at present advised that there may be serious objections to adopting it.

I have, &c.
T. H. FARRER.

The Secretary, Trinity House.

No. 24.

MR. FARRER to the SECRETARY, TRINITY HOUSE.

(No. 3,601.) Marine Department, Board of Trade,
5th April 1859.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Elder Brethren of the Trinity House, the accom-

panying copy of a memorial from merchants and others of the port of Falmouth, against the proposed byelaws of the Trinity House for altering and amending the rates and districts of pilotage at that port.

My Lords will be glad to receive from the Elder Brethren any observations they may have to offer with reference to this memorial at the time when they report generally results of the notices they have given of the proposed byelaws.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 24.

To the Lords of the Privy Council for Trade.

The Memorial of the undersigned Merchants and other Inhabitants of Falmouth in the County of Cornwall.

Sheweth,

That your memorialists are deeply interested in the trade and prosperity of Falmouth Harbour.

That your memorialists have read with alarm a public notice emanating from the Honourable the Corporation of Trinity House, dated Trinity House, London, March 16, 1859, entitled "Amended "Rates and Pilotage, Falmouth District," by which is proposed to alter the rates and districts for pilotage at Falmouth.

That your memorialists are of opinion that the enforcing pilotage from vessels passing within a line drawn from the Dodman to the Lizard would be injurious to commerce as tending to prevent vessels working up inshore out of tide, and in thick weather the approach of vessels wishing to make a departure from some known headland or Saint Anthony's Light.

That with respect to vessels bound to Falmouth it is most undesirable that pilots should have the power to claim pilotage for bringing vessels to anchor except in good anchorage ground within the harbour proper, that is to say, within a line drawn to the north of the Black Rock, and that any attempt to extend the harbour to a line drawn from the Block-house on Pendennis Point to Saint Anthony's Lighthouse as proposed would be most injurious and objectionable as tending to encourage pilots to anchor vessels at the entrance of the harbour in a dangerous situation, and block up the channel instead of bringing them to a place of safety within the harbour, a practice which has lately prevailed, to the great loss of property and the inconvenience of masters and their crews.

That your memorialists utterly object to any compulsory pilotage for vessels brought to anchor outside a line drawn from Carrick North Point to the Block-house on Pendennis Point, as encouraging pilots to bring vessels to anchor in unsafe ground, and therefore most injurious to commerce and to the public good, and would submit that any payment for pilotage services rendered without such line should be a matter of private arrangement between the shipmaster and pilot.

That on the first of February last one Frederick Andrew, a pilot of this district, preferred a complaint before the magistrates of Falmouth against Messieurs Fox as the agents for Captain Kroff, of the bark "Micklenburg Hansurth," for non-payment of pilotage outwards; that on the hearing it was proved that the said bark had been brought to anchor outside the Black rock but within a line drawn from Saint Anthony's Head to the Block-house, and the magistrates, after hearing evidence and in particular the evidence of Captain Robinson, R.N., and James Caddy, Esq., R.N., two of the Sub-Commissioners of Pilotage for this district, decided that the said bark was not brought to anchor in proper anchorage ground within the harbour, and dismissed the case.

Your memorialists respectfully submit that such decision was in perfect accordance with law and sound policy.

Your memorialists, therefore, pray that the proposed alterations be not made.

Falmouth, 29th March 1859.

G. C. and R. W. Fox & Co.
Wm. Broad & Son.
Lashbrooke & Schmit.
Harry Jolly.
Jas. Hurbanks.
C. Clift.
John P. Bennetts.
Alfred B. Duckwater.
Edmund Handcock.
John Edey.
R. Snow.
Nich. Tresidder.
William V. Corks.
M. J. Jacobs.
Edwin Thos. Turner.

No. 25.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 4,707.) Trinity House, London, E.C.,

Sir, 29th April 1859.

I have the honour to acknowledge the receipt of your letter of the 5th instant transmitting copy of a memorial from merchants and others of the port of Falmouth against the proposed byelaws for altering and amending the rates and districts of pilotage

at that port, and stating that the Lords of the Committee of Privy Council for Trade would be glad to receive any observations the Elder Brethren may have to offer with reference thereto, when they report generally the results of the notices they have given of the proposed byelaws, and having laid the same before the Elder Brethren, I am directed to acquaint you, for their Lordships' information, that the memorialists are mistaken in supposing that the proposed byelaw will make any alteration in the Falmouth pilotage district; all that the Elder Brethren purpose is to establish a rate for vessels anchoring outside of Falmouth harbour, but they do not purpose, as stated by the memorialists, that any vessels at present exempt from compulsory pilotage should be rendered liable thereto.

The Elder Brethren are of opinion that the establishment of this new rate will remedy the serious inconvenience which has for some time past been felt from vessels anchoring within the narrow entrance to the harbour between St. Anthony's Lighthouse and Carricknarth Point, and with a view to prevent pilots unnecessarily leaving vessels at anchor outside of the harbour, it is proposed that the following regulation be established, viz.:—That no pilot be permitted to anchor a vessel outside the harbour except upon the special desire of the master, and which is to be noted on the certificate given by him to the pilot that the service for which he was hired has been performed.

I am to add that any arrangement such as that proposed by the memorialists, whereby the payment, for pilotage services rendered, is to be made dependent upon a private understanding between the shipmaster and the pilot, is contrary to the principles of the whole of the pilotage service, and the adoption of such an arrangement would, in the opinion of the Elder Brethren, be attended not only with inconvenience but with mischievous results to all parties concerned.

I am also directed to state that the notification of the proposed alterations in the byelaws regulating the rates of pilotage in the Falmouth, Dartmouth, and Weymouth districts has been made public in accordance with their Lordships' views, as conveyed in your letter of the 10th ult., and I am to transmit to you, agreeably with their Lordships' request, the accompanying copies of letters which have been addressed to this Board, together with the replies given thereto, and I am to inform you, for their Lordships' information, that the Elder Brethren do not perceive therein any grounds for recommending an alteration in either of the proposed byelaws, as submitted in my letter of the 3rd ultimo.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Enclosure in No. 25.

To the Honourable the Corporation of the Trinity House, London, E.C.

The memorial of the undersigned, merchants and other inhabitants of Falmouth, in the County of Cornwall.

Sheweth,

That your memorialists are deeply interested in the trade and prosperity of Falmouth harbour.

That your memorialists have read with alarm a public notice emanating from your Honourable Corporation, dated Trinity House, London, 16th March 1859, entitled "Amended Rates of Pilotage, Falmouth District," by which it is proposed to alter the rates and districts for pilotage at Falmouth.

That your memorialists are of opinion that the enforcing pilotage from vessels passing within a line drawn from the Dodman to the Lizard would be injurious to commerce as tending to prevent vessels working up in shore out of tide, and in thick weather the approach of vessels wishing to make a departure from some known headland or St. Anthony's Light.

That with respect to vessels bound to Falmouth it is most undesirable that pilots should have the power to claim pilotage for bringing vessels to anchor except in good anchorage ground within the harbour proper, that is to say, within a line drawn to the north of the Black Rock, and that any attempt to extend the harbour to a line drawn from the Block-house on Pendennis Point to St. Anthony's Lighthouse as proposed, would be most injurious and objectionable, as tending to encourage pilots to anchor vessels at the entrance of the harbour in a dangerous situation, and block up the channel instead of bringing them to a place of safety within the harbour, a practice which has lately prevailed to the great loss of property and the inconvenience of masters and their crews.

That your memorialists utterly object to any compulsory pilotage for vessels brought to anchor outside a line drawn from Carrick North Point to the Block-house on Pendennis Point, as encouraging pilots to bring vessels to anchor in unsafe ground, and therefore most injurious to commerce and to the public good, and would submit that any payment for pilotage services rendered without such line should be a matter of private arrangement between the shipmaster and pilot.

That on the 1st February last, one Frederick Andrew, a pilot of this district, preferred a complaint before the Magistrates of Falmouth against Messrs. Fox, as the agents for Capt. Kroff, of the barque "Micklenburg Hanswith," for non-payment of pilotage outwards,—that on the hearing it was proved that the barque had been brought to anchor outside the Black Rock, but within a line drawn from St. Anthony's Head to the Block-house, and the Magistrates after hearing evidence, and in particular the evidence of Capt. Robinson, R.N., and James Caddy, Esq., R.N., two of the sub-commissioners of pilotage for this district, decided that the said barque was not brought to anchor in proper anchorage ground within the harbour, and dismissed the case.

Your memorialists respectfully submit that such decision was in perfect accordance with law and sound policy.

Your memorialists therefore pray that the proposed alterations be not made.

Falmouth, 29th March 1859.

(Fifteen signatures attached.)

Enclosure 2 in No. 25.

Dartmouth, 26th March.

To the Right Honourable the Elder Brethren of the Trinity House of Deptford Strond, London.

GENTLEMEN,

WE the pilots of Dartmouth beg to suggest to your Honours concerning the Torbay pilotage. Dartmouth is a place of no trade, only a small port of refuge for a few wind bound vessels that likes to put in, as all the vessels takes Torbay for their place of refuge.

We are only asking your Honours for what belongs to our district. There is Start Bay, Dartmouth Range, and Torbay ; all vessels that anchors in those places at present goes in and out free from pilotage. We consider it to be a very hard case, as our licence expressly states that all ports and places within those limits ; but we have nothing compulsory to force ourselves on board. We have two fine cutters, but we are compelled to lay them at their moorings in the summer and take to our little boats, for there is nothing comes into Dartmouth to maintain cutter nor pilots. We beg to suggest to your Honours we have examined the Acts of Parliament of the other districts in the channel and we see that your Honours has been pleased to allow all the other districts one half of their harbour pilotage into their bays and roadsteads, the same outwards. We most humbly beg that your Honours will be pleased to grant us the same privilege as the other districts in the channel have got under your Honourable Corporation, the same outwards as inwards, to enable us to keep our cutters to sea respectable and maintain our families, also to return a revenue to your most Honourable Fraternity.

And your petitioners will be ever duty bound to pray. We the undersigned beg to remain,

Yours, &c.

RICHARD BENSON, Pilot.	BENJAMIN DYER, Pilot.
ROBERT KERSWILL, Pilot.	JOHN WILLIAM ANDREWS, Pilot.
RUEBEN KERSWILL, Pilot.	WILLIAM LAVERS, Pilot.
WILLIAM PALFREY, Pilot.	RICHARD H. BENSON, Pilot.

SIR, Custom House, Dartmouth, 29th March 1859.

HEREWITH is a memorial from the pilots of this district on the subject of the proposed alteration of the rates of pilotage which provide for the pilotage of Torbay at a charge of one third of the rate payable for Brixham and Torquay harbours.

The pilots at this port have two excellent cutters, for the purpose of enabling them to proceed to sea in stormy weather, which is constantly done in the search for vessels requiring their services, and the encouragement of pilots to do so is of great importance. Referring to the rates of pilotage for the harbours of Brixham and Torquay we find that they are little more than one half the rates for Dartmouth.

We would suppose therefore a vessel drawing twelve feet taking on board a pilot at some distance from this harbour, and from one of the cutters. The vessel would be piloted to her anchorage in Torbay (under the proposed regulations) for the sum of eight shillings. We do not hesitate to express our opinion that the proposed remuneration is inadequate, and that the scale for which the pilots memorialize, namely, one half of the Brixham and Torquay rates, instead of one third as proposed, is reasonable and fair, and such as we respectfully submit for the Board's approval.

We are, &c.

P. H. Berthon, Esq.

J. HUGHES,
J. R. GODFREY,
J. H. SPARK,
Sub-Commissioners of Pilotage,
Dartmouth District.

GENTLEMEN, Trinity House, London, E.C., 29th April 1859.

HAVING laid before the Board your letter of the 29th ultimo, submitting a memorial from the pilots of your district praying that the rate of pilotage for vessels anchoring in Torbay may be fixed at one half the rates into the Harbours of Brixham and Torquay instead of one third as proposed,

I am directed to acquaint you, for the information of the memorialists, that the Elder Brethren see no reason to alter the rate which they after careful consideration have proposed for vessels anchoring in Torbay, being of opinion that the masters of many more vessels will employ pilots at the rate proposed than if fixed as suggested in the said memorial, which will necessarily be of advantage to the pilots.

I am, &c.
P. H. Berthon.

Jno. Hughes, Esq.,
And Sub-Commissioners of Pilotage, Dartmouth.

Enclosure 3 in No. 25.

Sir, Poole, 1st April 1859.

Will you permit us to ask if it is intended to include coasting vessels as liable to compulsory pilotage when putting into Portland Roads for shelter, as we observe by your advertisement in the "Shipping Gazette" of the 16th March that it is intended to obtain an Order in Council to make all vessels pay pilotage. We have before written on the extreme hardship to shipowners compulsory pilotage is on vessels using Portland Roads, which until the last few years was always free from this tax, these roads being the easiest of access of any in the kingdom, free from all danger, and well known by all masters. That it is a subject of frequent complaint, the numerous letters that appear in the "Shipping Gazette" complaining of this fully testify.

We would point out, with all respect, the absurdity of a law that permits a captain to conduct his vessel in the prosecution of his voyage (say, from Sunderland to America) through any pilot limits, as long as he does not anchor within the limit, free of pilotage, (thus he may sail into Portland Roads for shelter and lay his vessel too for a week, and sail out when a favourable time offers, and not be liable to pilotage, as long as he abstains from anchoring,) but should he, to save wear and tear, and to rest his exhausted crew, anchor his ship, a pilot forces his services and makes his claim. We observe this week a letter in the "Gazette" complaining under these circumstances. We have ourselves had such a case, but now instruct our captains not to put in. It will, we fear, be a heavy tax if coasters are to pay. We shall feel obliged by your favouring us with a reply.

We are, &c.
Thomas and Jno. Manhill.

To P. H. Berthon, Esq.,
Trinity House, London.

Sir, Poole, 4th April 1859.

I see by a notice in the "Shipping and Mercantile Gazette" that it is the intention of the Trinity Board to apply to Her Majesty in Council to make certain rules or alterations respecting pilotage into and out of Portland Roads.

It appears to me that the effect of such order will be to make every vessel, coasting as well as going foreign, pay pilotage for using Portland Roads.

I beg respectfully to call your attention to the grievance which shipowners now have to submit to, and to the reason why they are so grossly imposed on.

From time immemorial until the breakwater was commenced and long since, Portland Roads was free to any ship without charge, and without being compelled to take a pilot. Now since the breakwater is made, or partly made, and the services of a pilot are much less required even than they were before, no ship going foreign can use the roads without being mulcted in a heavy sum for pretended services which are of no use whatever. The breakwater therefore, instead of being the means of saving ships and lives is actually the cause of destruction, because masters keep to sea and risk their ships rather than submit to the extortion to which they are now liable.

It is idle to pretend that the services of a pilot are required to anchor in Portland Roads; we must therefore look for another reason why Weymouth pilots are allowed to levy a sort of "black mail" on ships.

I beg to say that the general belief here is, and I think you will find that it is not far from the truth, that previous to a general election a deputation waited on your Board and made strong interest to get an order that all ships entering Portland Roads should take a pilot or rather pay pilotage (for few ships stop to take a pilot on board), and the reason why the said deputation made such an application was not for the benefit of ships but as a bribe to the pilots, many of whom are voters for the borough of Weymouth, and who voted accordingly for the government candidates, in return for the immense benefit they, the pilots, would receive from such order.

I most strongly protest against any order being made to enable pilots to force their services on ships or to fine a shipmaster for not employing them. In the present state of shipping owners can ill afford to pay for useless services.

And I respectfully submit that, the pilots of Weymouth having been already sufficiently rewarded for their votes, it is no longer necessary to continue the tax.

The tax was bad and mischievous enough in respect to foreign going ships, but to make coasters liable to the imposition will be intolerable.

I am, &c.
W. L. C. Adey.

P. H. Berthon, Esq.,
Secretary to the Trinity House, London.

The following reply was sent to Messrs. H. and J. M. Wanhill and W. L. C. Adey.

GENTLEMEN, Trinity House, London, 15th April 1859.

HAVING laid before the Board your letter of the 1st (4th) instant inquiring whether by the proposed byelaws for altering the rates of pilotage in the Weymouth district it is intended to make coasting vessels liable to compulsory pilotage when putting into Portland Roads for shelter. I am directed to acquaint you that the said byelaw will not affect the exemptions from compulsory pilotage granted by the 379th section of the Merchant Shipping Act, 1854, in favour of coasting and certain other vessels, the only alteration proposed being a reduction of two thirds in the rates payable in respect of unexempted vessels and exempted vessels employing pilots which may put into the harbour of refuge at Portland for shelter.

I am, &c.
P. H. BERTHON.

SIR, Poole, 19th April 1859.

I UNDERSTAND from many of my friends (shipowners) who are bitterly complaining, it is the intention of the Trinity Board to apply to Her Majesty in Council to order certain rules to compel vessels to take pilots into and out of Portland Roads, with an entrance two miles wide, 60 feet deep, and free from rocks or shoals. A more insufferable tax could not possibly be forced on British shipping, which is already so depressed and over burdened that scarcely any can be sailed at a profit.

If a toll were levied on all vessels anchoring within the breakwater I could comprehend some good accruing therefrom, if the proceeds went towards the cost of building, but to give pilots such power where no necessity exists, and their services never required, would result in bad consequences, for instead of its being a harbour of refuge erected at a great cost to the nation, would tend to keep ships at sea risking danger, damage, and loss of life, rather than submit to pay so unjust an imposition.

I have known the roads 40 years, and have always heard both British and foreign shipmasters say they could find their way with perfect ease and safety in and out at all times without any assistance.

I therefore most respectfully beg to draw your attention to these facts, and hope you will not attempt to compel foreign or home trade British ships to take pilots, but on the contrary, if any compulsion now exists, you will deem it advisable in justice to the shipping interest to rescind or remove it without delay.

I am, &c.
CHAS. JNO. STONE.

P. H. Berthon, Esq., Trinity House, London.

The following reply was sent to Mr. Chas. Jno. Stone.

SIR, Trinity House, London, E.C., 27th April 1859.

HAVING laid before the Board your letter of the 19th instant relative to the proposed byelaw for altering the rates of pilotage in the Weymouth district, I am directed to acquaint you that it is not proposed by the said byelaw to compel any vessels now exempted to employ pilots, but to effect a reduction of two thirds in the rates payable in respect of unexempted vessels, and exempted vessels employing pilots which may put into the harbour of refuge at Portland for shelter.

I am, &c.
P. H. BERTHON.

To the Master Wardens and Assistants of the Corporation of Trinity House of Deptford Strond.

GENTLEMEN,

WE, the undersigned, Trinity House pilots for the Weymouth district, have had our attention drawn to a public notice given by the Trinity House of their intention to submit for the consent of Her Majesty in Council a byelaw for altering the rates and prices, or other remuneration to be demanded and received for the time being by duly licensed pilots for their services in the said Weymouth district, and we wish to bring the following facts to the notice of the Trinity House, by which it will be clearly seen that the rates of pilotage, proposed to be substituted in lieu of those at present subsisting, will be an insufficient compensation for the risk and labour we as pilots have to undergo.

That at the present time there are only seven duly licensed pilots within the Weymouth district, and yet we are unable to earn a sufficiency to support ourselves, wives, and families from pilotage alone.

That Portland harbour of refuge is becoming a great place of resort for shipping, a great portion of which are vessels belonging to foreign owners, who invariably refuse to pay pilotage, and who, we are informed, we have no means of compelling to pay unless we wait for seven days, long before which time, generally speaking, they have sailed, and we lose the pilotage.

That within the Weymouth district are the "Race" and the "Shambles," two most dangerous places to shipping, and well known for the accidents and losses that have there occurred prior to the appointment of duly licensed pilots.

That for the purpose of boarding vessels beyond those places we are necessitated to keep large cutters, as a small boat would not live in the rough sea that generally exists there.

That a vessel of 800 tons that may have on board from 200 to 250 emigrants has been known to draw only 12 feet of water.

That to pilot a vessel out we have to see her beyond the Race and Shambles, and are necessitated) have one of our large cutters in attendance, which takes from three to four men to man her for the urpose of landing the pilot.

That in the case of the vessel above referred to, had she only put in for shelter, although we should ave had the care of so many lives, to a certain extent dependent on our skill as pilots, and a cutter attendance for the purpose of taking us on shore, we should receive according to the proposed rate ie paltry sum of 12*s.* for piloting her out of Portland Roads, or in other words, taking into con- deration the wear and tear of the cutter and the number of men employed, we should not receive much remuneration as a common labourer in agriculture would for his labour, notwithstanding we ay have to peril our lives and our property and are expected to be always on the watch.

That even now fishermen and others not licensed pilots, have been known to receive from masters vessels the sums of 3*l.* and 4*l.* for piloting vessels into the Portland harbour of refuge, where a censed pilot under the present existing rate would only receive 30*s.*

That we trust the Trinity House will see that by reducing the remuneration so low as that which the notice appears to be contemplated, will be of most serious injury not only to the licensed pilot it to the shipping interest, as licensed pilots and proper qualified men if so badly paid cannot be xpected to be so attentive to their calling, and it will encourage a class of men unqualified, who ould prefer continuing so, as they will be enabled to obtain a greater remuneration for their services an when qualified.

We therefore ask that the Trinity House will make no alteration in the present rates of pilotage ithin the said district, or should the Trinity House think an alteration necessary that they will as at olyhead and other places in Her Majesty's dominions, fix the scale of remuneration to be paid ithin the said district, at such an amount per ton as will be sufficiently remunerative to the pilot id fair to the shipowner.

We also ask that the Trinity House would take such steps as will enable us to adopt such summary easures as will prevent a vessel belonging to foreign owners coming in and going out of the Weymouth district without paying lawful pilotage, which is now the case and which is a serious ss to the pilots of the said district.

We are, &c.

Nicholas Way.	William Grant.
Edward Tizard.	Thomas Way.
John Perks.	William Smith.
Edward Way.	

Enclosure 4 No. 25.

IR, Custom House, Weymouth, 30th March 1859.

In transmitting the accompanying petition from the pilots of this district, for the consideration the Elder Brethren, we beg to report, with reference to the first request, that we are of opinion at an alteration of the rates of pilotage now subsisting here to those in force at Holyhead would not nefit the pilots. That we consider the proposed byelaw for the reduction of the rates of pilotage r vessels putting in at the harbour of refuge at Portland for shelter only, fair and equitable, and we lieve that the pilots themselves will find it so after a little experience, as there can be no doubt at more than three times the number of vessels will take refuge there in consequence of such duction. Moreover the rates being moderate will be an inducement for masters of vessels to accept the services of pilots and pay them their pilotage without any demur, instead of their endeavouring evade payment, as is frequently now the case under the existing rates.

We remain, &c.

Robt. G. Cheesman,
Charles Penny,
Sub-Commissioners, Weymouth District.

To P. H. Berthon, Esq.
&c. &c.

ENTLEMEN, Trinity House, London, E.C., 27th April 1859.

Having laid before the Board your letter of the 30th ultimo, forwarding a memorial from the ots of your district praying that the rate of pilotage for vessels putting into the harbour of refuge Portland for shelter may be fixed at one half the present rates instead of one third as proposed, and bmitting your opinion that the proposed rates for vessels putting into the said harbour for shelter ly are fair and equitable, and that the pilots themselves will find it so after a little experience, as any more vessels will take refuge therein in consequence of such reduction; I am directed to quaint you that the Elder Brethren concur in your views on this subject, and I am to request that u will acquaint the memorialists that the Board see no reason to alter the rate which they, after reful consideration, have proposed for vessels putting into the harbour at Portland for shelter.

I have, &c.

P. H. Berthon.

R. G. Cheeseman, Esq.
Sub-Commissioner of Pilotage, Weymouth.

No. 26.

Mr. Farrer to the Secretary of the Trinity House.

(No. 4,707.) Marine Department, Board of Trade,
5th May 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 29th ult., in which are contained remarks on the subject of the memorial from merchants and others of the port of Falmouth against the proposed byelaws for altering and amending the rates and district of pilotage at that port.

In reply I am to request that you will move the Elder Brethren to inform my Lords

1st, What have hitherto been the limits within which pilotage has been compulsory.

2nd, What are the limits now intended to be.

3rd, Whether the effect of the decision referred to by the memorialists was not that pilot had no right to pilotage for taking a vessel to a certain place inside a line from th Block house on Pendennis Point to the lighthouse on St. Anthony's Point; and whethe according to the first item in the proposed byelaw, the pilot would not for that service b entitled to full pilotage.

4th, Whether the proposed byelaw does not further increase the rates of pilotage b fixing a rate for vessels anchored outside the line in question, and whether vessels s anchored are not, under the existing byelaw, wholly exempt from such pilotage.

I am also to request, with reference to that part of the table of the rates of pilotag partially exempting ships belonging to Truro, that their Lordships may be informed wh is the reason for the exemption.

I have, &c.

The Secretary to the Trinity House. T. H. FARRER.

No. 27.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 5,128.)

Sir,

Trinity House, London, E.C., 11th May 1859.

Having brought under the notice of the Elder Brethren your letter of th 5th inst., signifying the request of the Lords of the Committee of Privy Council f Trade that they may receive certain information in relation to pilotage within t Falmouth district; I am directed to submit for their Lordships' consideration, t following replies to the several inquiries contained therein.

1st. What have hitherto been the limits within which pilotage has been compulsory?	From the Dodman to the Lizard, and in a out of all ports and places within those limi as defined in the notice of the appointment pilots published in the "London Gazette" the 14th March 1809, pursuant to the 22 section of the Act 48. Geo. 3. c. 104.
2nd. What are the limits now intended to be?	The same.
3rd. Whether the effect of the decision referred to by the Memorialists was not, that a pilot had no right to pilotage for taking a vessel to a certain place inside the line from the Block House on Pendennis Point to the lighthouse on St. Anthony's Point, and,	There appears to have been no decision this case; the magistrates considering the sa doubtful dimissed it, directing each party to p his own costs; the argument used by the def dant being, that the pilot had not taken vessel from Falmouth harbour, or Carrick Ro to sea, while the pilot contended that within Shag Rock was either Falmouth Harbour Carrick Roads, and that he was theref entitled to pilotage;
Whether, according to the first item in the proposed byelaw, the pilot would not for that service be entitled to full pilotage.	By the first item of the proposed byelaw pilot would be entitled to the full rate of pi age, the Elder Brethren being of opinion, t inside the line from the Block House on P dennis Point to the lighthouse on St. Antho Point, is Falmouth Harbour.

4th. Whether the proposed byelaw loes not further increase the rates of ilotage by fixing a rate for vessels nchored outside the line in question, nd,

The proposed byelaw will have the effect of reducing the rates of pilotage on vessels so anchoring, no difference having hitherto been provided by the rates, whether a vessel has been brought up in the outer anchorage or within the harbour, and the main object of the alteration being to amend this discrepancy;

Whether vessels so anchored are not, nder the existing byelaws, wholly xempt from such pilotage?

Every vessel, unless exempted by the first five clauses of the 379th section of the "Merchant Shipping Act 1854," or the master or mate thereof has a pilotage certificate enabling such master or mate to pilot such ship, is subject to compulsory pilotage when anchoring within the limits of a Trinity House pilotage district.

5th. What is the reason for partially xempting ships belonging to Truro?

These vessels being obliged to pass through the limits of the Falmouth pilotage district on their passage to or from their own port a reduction in the rates in their favour was, in consideration thereof, made in the year 1832; a similar reduction exists in favour of vessels belonging to Southampton when passing through the limits of the Cowes and Portsmouth districts.

I have, &c.

P. H. BERTHON.

The Secretary, Marine Department, Board of Trade.

No. 28.

Mr. Farrer to the Secretary to the Trinity House.

(No. 5,128.) Marine Deparment, Board of Trade, 23rd May 1859.

SIR,

I am directed by the Lords of the Committee of Privy Council for Trade to cknowledge the receipt of your letter of the 11th inst., relating to the proposed byelaws or altering and amending the rates and districts of pilotage of the port of Falmouth.

So far as my Lords understand the case it would appear that although pilotage may ave been compulsory, according to the letter of the law, outside the limits of Carrick Roads, yet that, practically, as no rate is specified for such services in the existing yelaws, such pilotage has not really been enforced.

My Lords understand further that the pilots have, under the existing byelaws, failed in nforcing a demand for pilotage where the ship has been anchored between the Carrick North Point and St. Anthony's Point.

In both these cases if the proposed byelaws have any effect that effect will be to make t clear that certain ships which have not hitherto had to pay pilotage rates, must hereafter pay them.

Assuming this view to be correct, my Lords direct me to acquaint you, for the nformation of the Elder Brethren, that they cannot, as at present advised, see any good rounds for the extension of compulsory pilotage at Falmouth, and they cannot therefore dvise Her Majesty to assent to byelaws which will, as they understand them, practically f not in terms effect such extension.

With reference to the proposed byelaws for Weymouth districts my Lords will take he necessary steps for obtaining Her Majesty's approval of the alteration proposed at he next Council.

With respect to the Dartmouth district my Lords observe that its western limit, which n the proposed Order in Council relating to that district is found at Start Point, is nentioned in the pilotage return of 1855 (Parliamentary, No. 516, p. 35), to be farther o the westward, viz. at Bolt Head.

In the same return, p. 63, the space between Start Point and Bolt Head is also ncluded in the Plymouth district.

If any reduction of the Dartmouth district is now being made, my Lords would uggest, for the consideration of the Elder Brethren, whether such alteration should not e more distinctly effected by the new byelaw in some such terms as are suggested by he pencil alterations in the draft returned herewith.

Subject to this observation, my Lords see no objection to the proposed byelaw relating to the Dartmouth district, and if they should be informed by the Elder Brethren that the present limits of the Dartmouth district are incorrectly described in the above-mentioned return, and that they in fact extend from Bob's Nose to Start Point only, they will recommend the byelaw for the approval of Her Majesty in Council in the form in which it has been submitted to their Lordships.

I have, &c.

The Secretary of the Trinity House. T. H. FARRER.

No. 29.

Mr. Farrer to the Secretary, Trinity House.

(No. 3,470.) Marine Department, Board of Trade,

Sir, 31st March 1859.

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Elder Brethren of the Trinity House, the accompanying letter and inclosure, from Mr. John Middleton, respecting a demand made on his vessel "Zenobia" for pilotage.

My Lords request that the Elder Brethren will inform them whether they consider that a second claim for pilotage should have been made in this case, if the master of the "Zenobia" had had a regular North Sea pilot on board when the vessel brought up in Yarmouth roads through stress of weather.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 29.

Gentlemen, 23, Dockwray Square, North Shields, 26th March 1859.

Enclosed I beg to hand you copy of letter from Messrs. John Shelly & Co., of Yarmouth agent for the Northern Clubs, respecting a demand made on our vessel the "Zenobia," for pilotage having from stress of weather had to bring up in the roads.

The said ship on her way from London in ballast had a regularly licensed North Sea pilot on board which licence extends through the said waters, and when at anchor there, a man presents himself and asks if they want his services, and they say no; he afterwards comes to Shields and demands pilotage from us, 1*l.* 7*s.* 6*d.*, and from several other owners similarly placed.

In our case we refused payment, not having seen the master; he left threatening proceedings. We write instructing Messrs. Shelly & Co. to inquire and if liable to pay, and this is their final reply.

The vessel arrived in London from Odessa last year, and has been laid up in the Victoria Dock till last month she was ordered down to the Tyne for repairs. The vessel was in ballast and under no engagement or charter.

Your Honourable Board will see the hardship of vessels being compelled to pay a second pilotage when compelled to anchor from stress of weather or adverse winds, and if refused I understand the pilots often take very summary powers by at once putting Admiralty writs on board, and not long ago did so to a French vessel not liable.

Hoping your Honourable Board will lend your powerful assistance in remedying an abuse, and impost (on our north country ships and trade) to a large amount without an equivalent,

Remaining, &c.

To the Honourable the Commissioners of the Board of Trade, London. John Middleton

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Sub-Enclosure in No. 29.

Sir, Yarmouth, 24th March 1859

On the receipt of Mr. John Middleton's favour of the 16th instant furnishing us with the "Zenobia's" last voyage and her future destination, we had no doubt of her liability to pay compulsory pilotage, but in order to be certain we waited a few days until we could see the Trinity agent here and have his decision, by which it appears that the "Zenobia" has returned from foreign voyage, and being now destined again foreign is liable to the pilotage; and for the government of your captains in future any ship passing through these channels in ballast after coming from a foreign port south of Boulogne, and intending (subsequently?) to go into the coasting trade it would be necessary for the captain to make a declaration before the Trinity agent at the port of delivery and obtain his certificate, otherwise the ship will still be liable to pilotage if anchoring in our road, on her passage down in ballast though intending to load coastwise. We inclose the pilot receipt and will thank you to remit us the amount by post office order, adding, say 2*s.* 6*d.* for trouble and postage, say 1*l.* 10*s.* 0*d.* in full.

We are, &c.

For John Shelly & Co

George Johnson, Esq., North Shields. J. Humphries.

No. 30.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 4,443.) Trinity House, London, E.C.,
SIR, 20th April 1859.

HAVING brought under the consideration of the Elder Brethren your letter of the 31st ultimo, transmitting, by direction of the Lords of the Committee of Privy Council for Trade, a letter from Mr. John Middleton, respecting a demand made for pilotage of his vessel, the "Zenobia," and requesting that the Elder Brethren will inform their Lordships whether they consider that a second claim for pilotage should have been made in this case, if the master of the said vessel had a regular north sea pilot on board, when the vessel brought up in Yarmouth Roads through stress of weather, I am directed to forward, for their Lordships' information, copy of a statement made by the Yarmouth pilot who offered his services to the master of the "Zenobia," and to express the opinion of the Elder Brethren, that if a regular north sea pilot, licensed for the gattways, was in charge of this vessel, no claim should have been made by the Yarmouth pilot on the owner thereof.

I return herewith the papers which accompanied your letter, and have the honour to be,

Yours, &c.
The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

Enclosure in No. 30.

Extracts from Mr. Davies' letter relative to the "Zenobia."

Yarmouth, 14th April.

Statement of Edward King, Harbour and Gattway Pilot, made before the Sub-Commissioners of Pilotage at Yarmouth.

"THAT on the 25th February last he spoke the 'Zenobia' of Shields, at anchor in Yarmouth Roads, and asked the master whether he wanted a pilot, who replied 'No, I have got as good a pilot as you.' King then requested the master to allow him to get on board to see the pilot's licence, and if it was regular he should be satisfied and would not trouble him; but the master would not let him, nor even allow a rope to be given him, but told him to go about his business.

"King further states, that upon calling upon Mr. Middleton, that gentleman said he would make inquiry, and if it was right he would pay him, after which King took no further steps in the business; but a short time since Mr. Rivett, of the firm of Shelly and Co., met him and told him to call at their office, which he did, and there received the pilotage."

No. 31.

MR. NATHANIEL SUTTON to the BOARD of TRADE.

(No. 9,695.)
GENTLEMEN, Newport, September 23, 1859.

I ARRIVED here this day, after being cleared out from Dublin, the ship being from foreign, before a pilot spoke and came on board, and now claims pilotage. I am now loading coastwise; also you will oblige to let me know if I am compelled to pay pilotage; also they want to compel pilotage outwards. You will oblige by sending a certificate for to shift ports.

I am, &c.
To the Board of Trade. NATHANIEL SUTTON.

No. 32.

SIR J. E. TENNENT to CAPT. N. SUTTON, MASTER of "The GIRL I LOVE" of CORK.

(No. 9,817.) Marine Department, Board of Trade,
SIR, 3rd October 1859.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 23rd ult., asking for information relative to your liability to pay pilotage in respect of your vessel "The Girl I Love," under the circumstances stated by you.

I am to acquaint you that, having referred the matter to the Elder Brethren of the Trinity House, my Lords have received the reply of which a copy is enclosed.

I have, &c.
Captain N. Sutton, Master of the "Girl I Love" of Cork, Newport, Monmouthshire. J. E. TENNENT.

Enclosure in No. 32.

(No. 9,817.)

SIR, Trinity House, London, 28th Sept. 1859.

HAVING brought under the consideration of the Elder Brethren the letter from Mr. Nathaniel Sutton, forwarded in yours of the 26th inst., making inquiry in respect of his liability to pay pilotage on his vessel "The Girl I Love," under the circumstances therein set forth, I am directed to acquaint you, for the information of the Lords of the Committee of Privy Council for Trade, that it appears to the Elder Brethren that, if the said vessel were, as is supposed, engaged at the time in carrying a coasting cargo from Dublin to Newport, and no unlicensed person were employed, she was exempt from compulsory pilotage in the Newport district, and will likewise be so exempt when proceeding outwards, provided the circumstances be the same.

I return Mr. Sutton's letter, and have the honour to be, sir,

Yours, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No. 33.

RICHTERING, BEST, & Co., to the SECRETARY of the BOARD of TRADE, London.

(No. 11,262)

SIR, Wellington Street, Hull, Sept. 19, 1860.

WE are requested by Mr. W. Thomas Clarke, Great Yarmouth, to pay *2l.* 4*s.* (11 feet at 4*s.*) pilotage, for the Prussian vessel "Louise," Captain Eichman, which has passed through Lowestoft Roads, coming from Marseilles and bound for Hull. The captain is under the impression that he is not bound to pay this amount according to the Merchant Shipping Act, 17 & 18 Vict. cap. 104, Part 5, clauses 379 (6), about the exemption of compulsory pilotage.

Please let us know in course, if convenient, if the captain has to pay, as we consider it, with regard to the above mentioned Act, an illegal charge.

We are, &c.

To the Secretary of the Board of Trade. RICHTERING, BEST, & Co.

P.S.—The captain has had no pilot on board, neither has hoisted a signal for a pilot. Alongside his vessel has been a boat; however, he has refused to accept any assistance from a pilot.

No. 34.

MR. FARRER to MESSRS. RICHTERING & Co.

(No. 11,262.) Marine Department, Board of Trade,

GENTLEMEN, September 20, 1860.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 19th instant, on the subject of Mr. Clarke's claim for pilotage in respect of the Prussian vessel "Louise," and I am to acquaint you that my Lords (even if furnished with all the particulars requisite in your case, which are not given in your letter), have no power to put an authoritative construction on the Act of Parliament, and they can only refer you to the terms of the Statute.

I am, &c.

Messrs. Richtering & Co., Wellington Street, Hull. T. H. FARRER.

No. 35.

MR. SMITH to MR. T. H. FARRER.

(No. 10,384.)

SIR, Dartmouth, Oct. 13, 1859.

I AM requested by the owners of the "Pilot" steam-tug of this port to lay the following facts before you:—

On the 10th September the "Pilot," of twenty-six tons register, left Dartmouth with passengers to view the "Great Eastern" at Weymouth. On board the "Pilot" were Dartmouth pilots, although not acting in that capacity.

The "Pilot" reached Weymouth on the 10th September at 3 P.M., and that day made

three trips from Weymouth pier to the "Great Eastern" and back, distance about 1½ miles, and wholly within the harbour of Portland.

The steam-tug "Pilot" remained at Weymouth that evening, and on the following morning (Sunday, 11th) recommenced running as above. She never anchored during her stay in that port. Previously to her starting on her first trip on the Sunday she was boarded by a local pilot called Perks, who impertinently forced himself on board the "Pilot," and remained there the whole day in spite of the master's remonstrances, who directed his crew not to attend to Perks' orders. The master of the steam-tug "Pilot" has been master of a coaster for thirty-two years, knows Weymouth Harbour very well, and has his proper certificate from the Board of Trade to take passengers.

The "Pilot" made six trips in and out on the Sunday from Weymouth quay to the ship, and one like trip on the Monday, for which Perks has charged 7*l.* 10*s.*, making each trip cost 1*l.* and 10*s.* for the pilot on leaving. The steam-tug draws five feet of water. Her owners on leaving Weymouth declined to pay this exorbitant charge, and denied their liability to pay anything, contending that under the circumstances the steam-tug was not bound to take a pilot, and that no pilotage was due or could be demanded.

Similar circumstances occurred on the 14th September, when the "Pilot" was again at Weymouth, in which case the pilot was called Grant. His conduct was protested against, and his claim of 2*l.* refused.

The favour of your opinion is requested whether or not the owners of the "Pilot" are liable for the pilotage in question, I having advised them that they are not, under the Mercantile Marine Act. The pilots, on finding the owners resist, offered to reduce their claim, but my clients I consider very properly declined to pay anything, and their charge being so great immediately took their vessel from the harbour. I beg to enclose you the pilots' charges, and will thank you to return same in replying to this letter.

I beg, &c.

T. H. Farrer, Esq., W. SMITH.
Secretary, Marine Department, Board of Trade.

No. 36.

Mr. Farrer to Mr. W. Smith.

(No. 10,384.) Marine Department, Board of Trade,
15th October, 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to ackowledge he receipt of your letter of the 13th instant, relative to certain pilotage fees demanded in respect of the steam-tug "Pilot" by the local pilots at Weymouth; and I am acquaint you that my Lords have no authority to interfere in the matter to which you allude, and I am to suggest that any complaint you have to make should be laid before the Elder Brethren of the Trinity House. The pilots' bills forwarded by you are herewith returned.

I have, &c.

W. Smith, Esq., Dartmouth. T. H. FARRER.

No. 37.

Mr. Booth to the Secretary, Trinity House.

(No. 684.) Marine Department, Board of Trade,
17th January 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the enclosed letter (together with its enclosures) from Mr. Lindsay, complaining of the proceedings of Mr. M. C. Butler, Trinity pilot at Gravesend, with respect to the pilotage claimed by him in respect of the barque "Chase."

I am to request you in laying these papers before the Elder Brethren to state that these proceedings, if unexplained, appear to my Lords to have been of a vexatious and oppressive character, and I am to suggest that the Elder Brethren should make such inquiry into the circumstances of the case as may appear to them calculated to prevent a repetition of the like causes of complaint.

I have, &c.

The Secretary, Trinity House. J. BOOTH.

Enclosure in No. 37.

SIR, 8, Austin Friars, London, January 12, 1860.

I VENTURE to bring under your notice a matter which I think requires immediate investigation, and in which the party aggrieved appears to be entitled to prompt redress.

The facts, as represented to me by Messrs. Lumsdon and Byers of Sunderland, a firm of the highest respectability, are as follows:—

The barque "Chase," Clark master, having taken in ballast at Northfleet, passed Gravesend on the 30th December last, on her way to the North. It was blowing at the time very strong from the westward. Off the town pier, Gravesend, a pilot in his boat hailed the ship. The master hove to; but as the "Chase" was likely to fall foul of a vessel at anchor, he was obliged, before the pilot could reach his ship, to fill her fore yard in order to give her steerage way to clear the vessel at anchor. Seeing this, the pilot pulled for the shore. The master alleges that he did everything in his power to get the pilot on board; but that the pilot made no exertions to reach the ship, knowing that his pilotage was secure whether he performed his duty or not. The master further states that he was agreeable to have a pilot, and that if the most ordinary exertions had been used the pilot could easily have got on board. Such are the facts represented to me by Messrs. Lumsdon and Byers, in whose statements I can place the utmost confidence. I now beg to call your attention to what followed. The *first* account rendered for pilotage was sent through a solicitor, whose note (No. 1) I enclose. It is dated the 4th instant, but it did not reach the master of the "Chase" till 3 p.m. of Saturday the 7th instant. The master had to consult Mr. Boxford, the owner of the barque. As soon, however, as this latter gentleman had received the account, he sent, on Monday the 9th instant, a post office order for the full amount claimed, with 6*s.* 8*d.* additional, being the lawyer's charge for writing the note. But the matter did not end here. On the same day, namely, Monday the 9th instant (I am particular with the dates), a policeman was despatched from Gravesend, and on the morning of Tuesday the 10th he served upon the master of the "Chase" the enclosed summons (No. 2) and demanded payment of the enclosed account (No. 3), amounting to 21*l.* 1*s.* This you will note contains a charge of double pilotage 12*l.* 8*s.*, solicitor's fee 1*l.* 1*s.*, and the policeman's expenses 7*l.* 1*s.* 6*d.*! I understand that these proceedings, however prompt, and I must add, harsh and extraordinary, are in conformity with the law; and Mr. Boxford must have felt so, for though he had paid the pilotage, he at once also paid the 21*l.* 1*s.* demanded of him.

If I may venture an opinion I think that the whole of the 21*l.* 1*s.* ought to be refunded, for, before the summons reached Mr. Boxford, and in a "reasonable time," he had paid the amount claimed. If not the whole, then I think he is entitled to claim, and receive back, the double pilotage, 12*l.* 8*s.*

My principal object, however, in bringing the case so fully under your notice, is, with the hope that you will take the law of pilotage into consideration, and that if you feel it is not desirable to make any change in the law, you will be pleased to give orders that it be executed in a manner which will in future prevent any ship owner from being subjected to so great a hardship as that which I have related.

This is far from a solitary case. Very many of my shipowning constituents feel that they ought not to be called upon to pay for services which they do not require, and all of them consider the *mode* in which the law is put in force an intolerable grievance.

I have, &c.
W. S. LINDSAY.

The Right Honourable the President of the Board of Trade.

No. 38.

MR. FARRER to the SECRETARY to the TRINITY HOUSE.

(No. 1,259.) Marine Department, Board of Trade,

SIR, 28th January 1860.

WITH reference to the letter from this Department of the 17th instant, transmitting a letter from Mr. Lindsay, complaining of certain proceedings of Mr. Butler with respect to the barque "Chase," I am directed by the Lords of the Committee of Privy Council for Trade to enclose a memorial from the Sunderland Shipowners' Society and Chamber of Commerce having reference to the same subject.

My Lords request that you will move the Elder Brethren to be good enough to consider this memorial in connexion with the letter from Mr. Lindsay, and to inform my Lords of the result; and at the same time to favour them with any observations they may have to offer thereon.

I have, &c.
T. H. FARRER.

The Secretary, Trinity House.

Enclosure in No. 38.

(No. 2,295.)

To the LORDS of the COMMITTEE of PRIVY COUNCIL for TRADE.

The Memorial of the Shipowners' Society and Chamber of Commerce for the port of Sunderland, Humbly sheweth, Sunderland, 24th January 1860.

THAT your memorialists, the shipowners of Sunderland, and the North Country shipowners in general, have frequently complained to your Lordships and the Legislature of the provisions of our pilotage system, but without obtaining any adequate redress.

That an instance has recently occurred, the particulars of which have been brought to your Lordships' attention in a letter addressed to the Right Honourable the President of the Board of Trade, by Mr. Lindsay, M.P. The barque "Chase," coming from London to Sunderland in ballast, having discharged a cargo at London from a foreign port, was, while passing over pilotage ground, compellable by law to take a pilot. The captain, accustomed to the coast, needed no pilot, but knowing his legal obligations he was willing to have taken one on board and to have paid the usual atrocious charge for useless service, had that not been rendered impracticable by the circumstances set forth in Mr. Lindsay's letter. The pilot, eager to construe an accident into a crime, instead of persevering in his attempt to reach the vessel, returned instantly to the shore, and there laying an information, untrue in fact, induced a Gravesend Justice of the Peace to issue his warrant and send a constable therewith, all the way to Sunderland to arrest the Captain on his arrival there, and convey him thence a prisoner to Gravesend. The pilotage had been already remitted by the owner of the "Chase" with an attorney's charge of six shillings and eightpence; but under pressure of a gross abuse of criminal process, an equal sum making double pilotage, and the heavy expenses demanded by the constable, who was apparently armed with the double powers of a constable and a bailiff, were at once paid down to him, and although this occurred a fortnight ago the wrong done has not yet been redressed.

That this case is only one among many in which the warrants of a Gravesend Justice of the Peace have been similarly employed to extort the payment of large sums of money, under the pretence of the law having been violated by refusing a pilot, the approved commercial practice being to submit to tyranny when resistance is profitless, and pay money not considered due rather than incur the personal vexation and pecuniary loss of a long journey under arrest, and of an unsatisfactory hearing of disputed facts before a tribunal in the impartiality of which the shipowner has not the slightest confidence.

That the law which creates the liability to pilotage in those cases is as arbitrary and unjust as is the mode of its enforcement. Of two ships of equal size and value on their passage from London to Sunderland in ballast, the one is bound to take a pilot and the other is exempted from doing so for no reason known or knowable in either case at the time, but because of the fact then *in futuro* that after their arrival at Sunderland the owner of the one ship sends her foreign and the owner of the other sends her coastwise. And, what is more singular, the Trinity House have in a byelaw affected to redress the shipowners' grievances, by exempting from pilotage all ships whose masters before leaving for the North lodge a certificate to the effect that they are to be employed on the next voyage coastwise, although until their arrival at their home port the mode of the ship's future employment is not ascertainable, being dependent upon the state of the freight market and a thousand other contingencies.

Your memorialists earnestly pray that your Lordships will be pleased to inquire into these matters and take steps for removing from our shipping code those foul blotches which are not only in themselves the sources of much loss and vexation, but tend to annihilate that confidence in the wisdom of the Legislature which it is the earnest wish of your memorialists to indulge and foster.

Signed by order of the Committee and on behalf of the Society.

MARTIN LONIE, Chairman.

No. 39.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD OF TRADE.

(No. 1,518.) Trinity House, London,
January 31, 1860.

SIR,

I HAVE the honour to acknowledge the receipt of your letter of the 17th instant, transmitting, by direction of the Lords of the Committee of Privy Council for Trade, a letter with its enclosures from Mr. W. S. Lindsay, complaining of the proceedings which have been taken by Mr. M. C. Butler, pilot of Gravesend, against the master of the barque "Chase," for an offence against the pilotage laws, and stating that these proceedings if unexplained, appear to their Lordships to have been of a vexatious and oppressive character, and suggesting that such inquiry should be made thereon as may be calculated to prevent a repetition of the like causes of complaint: and having brought the same under the notice of the Elder Brethren, I am directed to acquaint you, for the information of their Lordships, that inquiry has been made into the circumstances under which the master of the "Chase" continued in charge of his vessel after a duly qualified pilot had offered his services or made signal for that purpose, and careful consideration having been given to the whole subject, I am now directed to forward for their Lordships' consideration declarations made by the said pilot, by Mr. Thomas Roxberry, a river pilot, who was at the time on the Terrace Pier, and by John Cole, master of the pilot boat, in respect of the proceedings of the master of the vessel in question, and also a letter from Mr. Sharland, the solicitor employed by Mr. Butler; and I am to submit the opinion of the Elder Brethren that the master of the "Chase" had he wished to have obtained the services of a pilot, as stated in Mr. Lindsay's letter, might have done so previously to his leaving Northfleet, and which it appears to the Elder Brethren would have been the

proper course, as the wind was fair through the Reach, and detention would have been thereby avoided, and no extra expense incurred.

Instead, however, of doing "everything in his power to get the pilot on board," as he alleges, he did that which prevented such a proceeding on the part of the pilot, who appears to have used his best endeavours to perform his duty.

It has been represented to the Elder Brethren that the "Chase" arrived at Sunderland on the 2nd instant, and it is allowed that, before proceedings were commenced for the infliction of the penalty to which the master had subjected himself, a desire was shown to effect a compromise, of which however, the master took no notice until after the magistrates had despatched their officer to execute their warrant, as a reference to Mr. Sharland's letter will evidence. The Elder Brethren, bearing in mind the short time vessels are now required to remain in a coal port to receive their cargoes on board, it being a well-known fact that a vessel can be loaded within a few hours of her being placed under the "shoots" and which might have been the case with the "Chase," had she not needed some repair, cannot view the proceedings as either "harsh" or unduly "prompt," especially as, in the event of the master being removed from the command of the vessel prior to her return, the pilot would have little chance of redress, the owners not being responsible for the neglect of the master in such cases.

It will be seen by their Lordships from Mr. Sharland's letter, that while he delayed putting the law in force against the master, he took immediate measures to release him from the effect of his neglect when the remittance of the amount first demanded was made, and I enclose the receipt of the master for the amount so remitted, and which sum was returned by the officer previously to his leaving Sunderland, of which fact no notice has been taken by Mr. Lindsay.

With respect to the powers granted to the Magistrates at Gravesend, or the charges allowed by them for the expenses, &c. referred to, the Elder Brethren conceive that they do not come within their cognizance, but they trust that their Lordships will concur with them in considering that the master of the "Chase" has brought upon himself, by his wilful disregard of the law and his negligence to take notice of the application made to him, all the annoyance and expense to which he has been subjected.

In conclusion, the Elder Brethren desire me to call their Lordships' attention to the fact that the disposal of the penalties inflicted under the "Merchant Shipping Act, 1854," by any Court, Justice, or Magistrate for which no specific application is provided, rest with such Court, Justice, or Magistrate, and they cannot suppose that the Magistrates at Gravesend would award to a pilot any part of the penalty so inflicted, unless it were proved to them that he had sustained wrong or damage by the act or default in respect of which such penalty was imposed; and I have at the same time to remark, that the Elder Brethren greatly regret to find that while in bad weather a great outcry is raised if pilots are not procurable the moment their services are desired, yet in many instances with a fair wind and in fine weather, every effort is made to evade them.

Referring to your letter of the 28th instant, transmitting a memorial from the Sunderland Shipowners' Society and Chamber of Commerce, in relation to this subject, I am to state, that the same is now under the consideration of the Elder Brethren, and that their observations thereon will be transmitted as early as possible for their Lordships' information.

I return herewith the papers forwarded with your letter of the 17th instant, and have the honour to be,

Yours, &c.
P. H. BERTHON.

The Secretary,
Marine Department, Board of Trade.

Enclosure 1 in No. 39.

I, MATTHEW CHARLES BUTLER, of the Borough of Gravesend in the County of Kent, Trinity pilot, do solemnly and sincerely declare,

That between the hours of 2 and 3 o'clock on the afternoon of Friday, the thirtieth day of December last, I was in the pilot boat with the pilot flag flying on Gravesend Reach on the River Thames looking out for a ship; it was flood tide about two hours and a half before high water. I saw a ship coming down the reach which proved to be the barque "Chase," Captain Clark. She was sailing down and the wind was blowing strong from about the south-west and by west. I directed the boat's course towards the barque and hailed her; our boat was then on the starboard side of the vessel, and as soon as I sang out "Barque ahoy!" the captain ran forward into the gangway. I asked him "Where are you bound to," he said "Sunderland," I asked him "Where from when you came "up," I understood him to reply "From Alexandria." I then said, "Why didn't you heave to and "let me get on board, could you not see our flag flying?" The ship was rapidly getting away from us, and I could not hear that the captain made any reply. We still continued to row after the ship

seeing the main yard hove aback, but owing to the strong breeze the ship still continued to go from us. Seeing there was no chance of overtaking her I directed the boat's head in shore. We had gone out a little way in this direction when I saw the fore yard also put aback; I then said to the captain of our boat "We must up sail and after him;" we did so and chased him for more than half a mile until I observed the foreyard again filled, when it was useless to continue our course longer and we out about accordingly.

The reach was clear and there was nothing in the way to prevent the captain of the barque heaving his vessel athwart the tide, which would have enabled me to have got on board in a short time. And I further solemnly and sincerly declare that I verily believe that the course adopted by the captain of the "Chase" was entirely with a view wilfully to evade taking a pilot.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of an Act made and passed in the session of Parliament of the fifth and sixth years of the reign of His late Majesty King William the Fourth, intituled "An Act to repeal an Act of the present Session of Parliament intituled 'An Act for the more effectual Abolition of Oaths and 'Affirmations taken and made in various Departments of the State, and to substitute Declarations 'in lieu thereof, and for the more entire suppression of voluntary and extra-judicial Oaths and 'Affidavits, and to make other Provision for the Abolition of unnecessary Oaths.'"

Subscribed and declared at Gravesend in the county of Kent, this twenty-sixth day of January 1860. } MATTHEW C. BUTLER.

Before me,

Edwd. Wates,

A Commissioner to administer Oaths in Chancery in England.

Enclosure 2 in No. 39.

I, JOHN COLE, of the Borough of Gravesend in the County of Kent, captain of the pilot boat on the Gravesend station, do solemnly and sincerely declare that on the afternoon of Friday the thirtieth day of December last I rowed off in the pilot boat with Matthew Butler, a licensed pilot, to a barque, the "Chase," sailing down the Reach. The pilot flag was flying in the boat. It was a flood tide and the wind was strong from the west, south-west.

Mr. Butler hailed the "Barque" to know where she was bound to, the captain said Sunderland. Some other conversation passed, but being rather hard of hearing I could not distinguish what was said. It was dangerous to board the vessel at the rate at which she was going. We rowed after her some little way seeing she had backed her maintopsail, but even with this we could not overtake her. We then pulled towards the shore, when we observed her back her foretopsail. Immediately upon this we hoisted sail and chased her half a mile, when she filled the foretopsail again and we put about seeing it was useless to try to overtake her. The Reach was clear and the vessel might have been hove athwart the tide, which would have enabled us to have boarded her in a short time.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the session of Parliament of the fifth and sixth years of the reign of His late Majesty King William the Fourth, intituled "An Act to repeal an Act of the present session of Parliament, intituled 'An Act for the more effectual Abolition of Oaths and 'Affirmations taken and made in various Departments of the State, and to substitute Declarations 'in lieu thereof, and for the more entire Suppression of voluntary and extra-judicial Oaths and 'Affidavits, and to make other Provisions for the Abolition of unnecessary Oaths.'"

Subscribed and declared at Gravesend, in the county of Kent, this twenty-eighth day of January 1860. } JOHN COLE.

Before me,

Geo. Edwd. Sharland,

A Commissioner to administer Oaths in Chancery in England.

Enclosure 3 in No. 39.

I, THOMAS ROXBURY, of the Borough of Gravesend in the County of Kent, Trinity pilot, do solemnly and sincerely declare that about 2 o'clock on the afternoon of the thirtieth day of December last, I was upon the look-out at the I. end of the Terrace Pier at Gravesend; I saw Matthew Butler pilot put off in the pilot boat with the flag flying towards a barque which I afterwards was informed was the "Chase." He rowed off into mid-channel to await the passing of the barque which was sailing down. There was a strong wind from the west, south-west. The ship passed close by the boat, and it was dangerous to have attempted to board her at the rate she was going through the water. The barque rapidly passed the boat, which continued rowing after her, but without a chance of overtaking her. The captain of the barque might easily have hove his vessel athwart the tide, which was a flood tide, the reach being clear and no vessel in his way.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of an Act made and passed in the session of Parliament of the fifth and sixth years of the reign of His late Majesty King William the Fourth, intituled "An Act to repeal an Act of the present Session of Parliament, intituled 'An Act for the more effectual Abolition of Oaths and 'Affirmations taken and made in various Departments of the State, and to substitute Declarations

" ' in lieu thereof, and for the more entire Suppression of voluntary and extra-judicial Oaths and " ' Affidavits, and to make other Provision for the Abolition of unnecessary Oaths.' "

Subscribed and declared at Gravesend this twenty-seventh day of January 1860. } THOMAS ROXBURY.

Before me,

R. Oakes,

Justice of the Peace for the Borough of Gravesend.

Enclosure 4 in No. 39.

Sunderland, January 11, 1860.

Received from Sergeant White the Sum remitted by Mr. J. Doxford to Gravesend. £6 10 8.

£6 10 8.

ALFRED [Receipt Stamp.] J. CLARKE.

Enclosure 5 in No. 39.

DEAR SIR, Town Hall, Gravesend, 28th January 1860.

As the solicitor concerned in the information preferred against the master of the barque "Chase" for a breach of the pilotage law, I feel that my professional character is somewhat affected by the complaint made by Mr. Lindsay to the Board of Trade, and I shall esteem it a favour if you will kindly transmit to the Trinity Board at the same time that you forward the other papers the following statement in explanation of the course which, as the legal adviser of the pilot Butler, I caused to be taken in the matter.

On the 4th day of January instant I was consulted by Butler, who is a pilot residing at Gravesend, in reference to the conduct of the master of the barque "Chase" in declining to avail himself of Butler's services as a pilot, and it appearing to me from the statement made by Butler that a wilful evasion of pilotage had been attempted by the master, I on the same day addressed to Captain Clark at Sunderland, a letter requesting payment of 6*l.* 4*s.* the single pilotage of the ship, with 6*s.* 8*d.*, my charges, to be remitted by return of post, and informing him that if not so remitted an application would be made for a warrant against him which would involve the penalty of double pilotage and costs.

On the 9th of January no reply having been received to this communication I advised Mr. Butler to apply for a warrant against the captain for his offence, which warrant having been granted by the Magistrates, they on the same day despatched their officer to Sunderland to execute it.

By the mid-day's post of the 10th of January I received a letter from a Mr. Doxford, whom I supposed to be the owner of the barque, enclosing a remittance for 6*l.* 10*s.* 8*d.* the amount of the single pilotage, and my charge as originally applied for, and immediately on the receipt of such letter I telegraphed to the Gravesend constable not to execute the warrant; and if he had already executed it to give the captain credit (if he elected to pay the penalty) for 6*l.* 10*s.* 8*d.*, the amount I had received.

When the message reach the constable the captain had been arrested and the double pilotage and costs had been paid. The constable therefore refunded to Captain Clark the 6*l.* 10*s.* 1*d.* as directed and took his receipt.

The only amount received by me or by Butler in this case was 12*l.* 8*s.* the double pilotage, and 1*l.* 1*s.* the solicitor's fee, always allowed by the Magistrates in convictions for this offence. With any other expenses I have nothing to do, nor has the pilot; we have no control over them, and save as informed by the complaint made by Mr. Lindsay, in this case we knew nothing about them.

The privilege of captains being able to settle the matter on arrest is in consequence of the Magistrates of this borough authorizing their constables who have charge of warrants to receive from the persons in custody the amount of penalty and costs, and then to release them; for were the law strictly enforced the captains must, even if they admit their offence and are willing to pay the full penalties, be brought to Gravesend in order to be formally convicted by the Magistrates, when after satisfying the penalties and costs awarded they would have to return, paying of course their travelling expenses to and from in addition.

From my experience in pilotage cases I am enabled to say that it is only by the most prompt and decisive steps being taken where masters of vessels commit offences of this kind, that the pilot is enabled to recover his due. Were any delay allowed, the ship and master would certainly be gone and the remedy lost. In this very case I am informed that it was only owing to the barque having been on the gridiron for repairs that Captain Clark was found at all; and there are now in the hands of the Superintendent of Police of this borough no less than nine warrants and summonses unexecuted in consequence of masters departing from British ports before the warrants could reach them.

In every case in which I am consulted a letter for payment is in courtesy written before proceedings are taken and time for a reply allowed. If after having violated the law the master takes no notice of such application, I can see no ground whatever for complaint of the consequences of his own negligence and defiance of the law.

I am, &c.

Captain Anderson, Ruler of Pilots, Gravesend. T. W. EDW. SHARLAND.

No. 40.

Mr. Farrer to the Secretary of Trinity House.

(No. 1,518.) Marine Department, Board of Trade,
9th February 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 31st ultimo, containing the remarks of the Elder Brethren on the complaint made by Mr. Lindsay as to the proceedings taken by Mr. Butler, a Gravesend pilot, in respect of the barque "Chase."

My Lords regret that they cannot entirely concur in the conclusion to which the Elder Brethren appear to have come, for the following reasons:

1. Considering the conflicting statements which have been made, and considering also the difficulties of navigation, it seems to my Lords that it cannot be assumed as concluded by the evidence which has been offered that the master of the "Chase" wilfully refused to accept the services of the pilot.

2. The demand for pilotage, which was dated the 4th, and which the solicitor states was addressed to the master of the "Chase" on the 4th, did not, according to Mr. Lindsay's statement, reach the master till 3 p.m. of the 7th. There must, therefore, it appears to my Lords, either be some mistake as to the dates on the one side or the other, or there must have been circumstances such as misdirection, or misdelivery of the letter, &c. which prevented the master receiving it as soon as the solicitor seems to have expected that he would.

The possibility of such circumstances occurring has a material bearing on the subsequent conduct of the pilot and of his legal adviser.

3. But whatever the facts may be as regards the two points first mentioned, the conduct of the pilot and his attorney in procuring a warrant on the 7th and sending a policeman with it to Sunderland to arrest the master, appears to my Lords to have been a harsh and oppressive proceeding. The Magistrates have no doubt, under the Statutes relating to this subject, power to issue a warrant in the first instance instead of a summons. But considering that in this case the proceeding, though in form criminal, was really in the nature of a civil action for damages, and that no doubt whatever appears to have existed as to the respectability of the master, it may well be questioned whether the pilot and his legal adviser were justified in resorting to a step which involved heavy costs, and which if it were only to relieve the master from being obliged to travel 600 miles would probably insure the payment of the sum demanded whatever the justice of the case might be.

Under these circumstances, the Board of Trade, whilst fully aware that the decision of the case under the Statute, so far as the conduct of the pilot is concerned, rests with the Trinity House, would feel very glad if the Elder Brethren, on reconsidering the case, should come to the conclusion that the one half of the double pilotage ought to be returned to the master of the "Chase."

My Lords defer replying to Mr. Lindsay till they hear again from the Elder Brethren.

The enclosures in your letter are returned.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 41.

Mr. Farrer to Mr. W. S. Lindsay, M.P.

(No. 2,294.) Marine Department, Board of Trade,
25th Feb. 1860.

Sir,

Referring to the letter to you from this Board of the 17th ult., I am directed by the Lords of the Committee of Privy Council for Trade to transmit for your information the accompanying copy of the correspondence that has passed between this Department and the Trinity House, on the subject of the proceedings of Mr. Butler, a Gravesend pilot, against the master of the barque "Chase." From that correspondence you will see the opinions this Board have expressed to the Trinity House, but they have no powers and are unable to take any further steps in the matter.

The enclosures in your letter of the 12th ult. are herewith returned.

I have, &c.

W. S. Lindsay, Esq., M.P., 8, Austin Friars. T. H. FARRER.

Enclosure 1 in No. 41.

SIR, Trinity House, London, E.C., 15th February 1860.

I AM directed by the Elder Brethren to acknowledge the receipt of your letter of the 9th instant, conveying the views of the Lords of the Committee of Privy Council for Trade, upon the remarks made by the Elder Brethren on the complaint preferred by Mr. Lindsay, in respect of the proceedings taken by Mr. Butler, a pilot of Gravesend, in the case of the barque "Chase," and the Elder Brethren having given renewed consideration to this subject, and also to the observations of their Lordships, as conveyed in your letter, I am now directed to express their regret at finding that their Lordships do not entirely coincide with them in the view they take of this case, and I am to submit for their Lordships' consideration the following further remarks upon this subject.

In the opinion of the Elder Brethren there was an evident desire on the part of the master to evade the employment of a pilot, for he might, had he desired to do so, have taken one on board at Northfleet, by which he would have avoided any detention and have incurred no additional charge; and the state of the tide (2½ hours before high water) and the direction of the wind (S.W. by W.) at the time when the pilot offered his services, were such as to facilitate the views of the master had he been disposed to avail himself of the pilot's services. The declarations of the pilot, of Mr. Roxberry, and of the master of the pilot boat, also prove that the difficulty which the master alleges to have arisen from the position of another vessel was not such as to prevent his taking the pilot on board.

As respects the supposed unnecessary promptitude in the proceedings taken by the pilot, the Elder Brethren desire to observe, that in such cases the pilot has his remedy against the master alone, and not against the owner of the vessel, and they consider that in the present case, by proposing in the first instance to take the single pilotage, rather than at once proceed for the penalty, the pilot was not actuated by any harsh motives, which is further evidenced by his not applying for a warrant against the master until five days had elapsed after his first demand, during which time he had heard nothing from him, and no evidence is adduced to show that the master had not received the pilot's first application in due course.

Adverting to the circumstance, that not less than nine warrants are now out against different masters for evasion of the pilotage laws, who are absent (the whole expense of the officer proceeding to execute such warrants falling upon the individual pilots it appears to the Elder Brethren that Mr. Butler was justified in the course he took.

With reference to the expression of their Lordships' hope that the Elder Brethren on reconsidering the case will come to the conclusion that one-half of the double pilotage ought to be returned to the master of the "Chase," I am directed to observe that the appropriation of the amount received as a penalty rests entirely with the Magistrates, and that this Board has no control over its disposition; but, as a pilot upon applying for a warrant for enforcement of the penalty is obliged to relinquish employment during the period the warrant may be in course of execution in order that he may be at hand if required, and is thereby subjected to loss, in addition to the expenses actually incurred, the Elder Brethren cannot consider the decision of the Magistrates as unjust in respect of the appropriation of the penalty of double pilotage in the case in question.

I have, &c.

The Secretary, P. H. BERTHON.
Marine Department, Board of Trade.

Enclosure 2 in No. 41.

(No. 2,295.) Marine Department, Board of Trade,
SIR, 25th February 1860.

I AM directed by the Lords of the Committee of the Privy Council for Trade to acknowledge the receipt of the memorial signed by you on behalf of the Shipowners' Society and Chamber of Commerce of Sunderland, complaining of the operation of the existing system of pilotage, and calling attention more especially to the case of the barque "Chase," and the proceedings taken against her master by a Gravesend pilot.

I am to acquaint you that your memorial has been referred to the Elder Brethren of the Trinity House for their observations thereon, and I inclose for your information a copy of the reply of that Corporation.

As regards the case of the "Chase," I am to inform you that a copy of the correspondence that has passed on the subject between this Board and the Elder Brethren has been forwarded to Mr. W. S. Lindsay.

With reference to the statement in the memorial to the effect "that this case (of the 'Chase') is only one among" many in which similar vexatious proceedings have been taken by pilots, by obtaining warrants from the justices at Gravesend, my Lords will be glad to be favoured with any specific cases which may have come to the knowledge of the Shipowners' Society, in which masters have been proceeded against by pilots in the manner represented by the memorialists.

I have, &c.

The Chairman, Shipowners' Society and Chamber of Commerce, Sunderland. T. H. FARRER.

Enclosure 3 in No. 41.

SIR, Trinity House, London, E.C., 15th February 1860

HAVING laid before the Elder Brethren your letter of 28th ultimo, transmitting copy of a memorial which has been addressed to the Lords of the Committee of Privy Council for Trade by

the Shipowners' Society and Chamber of Commerce of Sunderland, in which they refer to the proceedings taken by Mr. Butler, a pilot of Gravesend, against the master of the barque "Chase," and offer certain observations relative to the operation of the existing law, as it affects cases of a similar nature.

I am directed to acquaint you, for their Lordships' information, that the Elder Brethren have given the subject matter of the memorial their attentive consideration, and as respects that part of it which relates to the case of the "Chase," they beg to refer to the observations contained in my letter of 1st instant, and in that which I have this day addressed to you, as conveying their views in relation to that case.

Referring to the remark of the memorialists that "one ship on her passage from London to "Sunderland in ballast is bound to take a pilot, while another navigating under similar circumstances "is exempt from so doing, for no reason known or knowable in either case at the time, but, "because of the fact, then *in futuro*, that after her arrival at Sunderland the owner of one ship sends "her foreign and the owner of the other sends her coastwise," the Elder Brethren desire to observe that such does not appear to be a correct representation of the case at issue, inasmuch as had both vessels arrived in London from a foreign port both would have been subject to compulsory pilotage on their voyage to Sunderland, and had both arrived coastwise both would have been exempt, the real difference being in the circumstances under which the vessels were navigating, in the one case, the vessel having proved her exemption as a vessel in the coasting trade, by the declaration of the master that she was going to Sunderland under engagement to load a cargo coastwise from thence, and in the other case no such claim to exemption as a vessel "in the coasting trade" having been claimed or substantiated.

The Elder Brethren desire to recall to their Lordships' remembrance that the byelaw referred to by the memorialists was adopted for the purpose of resolving a doubt, which had previously existed, as to the exemption of vessels going in ballast after completing oversea voyages to the coal ports to load coastwise from pilotage, as "vessels in the coasting trade," and for enabling the masters to claim such exemption. Should it, however, be deemed desirable by their Lordships that the operation of this byelaw should be so extended as to apply to vessels proceeding coastwise in ballast their future destination being at the time unknown, the Elder Brethren consider that the same may be effected by attaching the condition that in such cases the pilotage payable in respect of the passage in ballast, be deposited at this House and returned in the event of the vessel proceeding afterwards on a coasting voyage, and no pilot or unlicensed person having been employed.

The Elder Brethren beg to call their Lordships' attention to the fact that a large proportion of the vessels which proceed from London to the coal ports, after discharging cargoes from over sea, not only avail themselves of the services of pilots as far as the legal limits but also employ men acquainted with the coast to assist them after the pilots have been discharged, and that this custom prevails with foreigners almost without exception, and that it is well known that many vessels while endeavouring to evade the employment of pilots have unlicensed person either in charge or concealed on board when the pilots offer their services, thus showing that the masters, however well qualified they may be whilst constantly engaged in the coasting trade, are doubtful as to their ability to pilot their own vessels in consequence of the changes which may have taken place in the different sands and channels during their absence on oversea voyages.

The Elder Brethren desire further to remark that it appears to them that under the existing law, which enables any competent master or mate to obtain a pilotage certificate at a small sacrifice of time and cost, the hardship of compulsory pilotage can no longer be complained of with justice, and that the fact of a master not obtaining such a certificate may fairly be considered as affording evidence of his want of that experience which he ought to have before he presumes to act as pilot in variable and intricate navigations.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

P.S.—I herewith return the memorial.

No. 42.

MR. PHIN to the SECRETARY, BOARD of TRADE.

(No. 1,220.)

SIR, Edinburgh, 13, Heriot Row, January 24, 1860.

I BEG leave herewith to send you a copy of the Pilotage Regulations at the port of Leith, enacted by the Commissioners for the harbour and docks of Leith, and approved of by Her Majesty in Council on 28th July 1856.

The Commissioners now consider it expedient (in accordance with sect. 332 of "The Merchant Shipping Act 1854,") to abolish compulsory pilotage within the limits of the harbour, and I enclose a copy of the alteration on the regulations which they propose for that purpose, in virtue of sect. 333 (8) of the said Act, and have to request that you will be pleased to inform me (with reference to sect. 334) in what manner this alteration shall be published.

I have, &c.
JOHN PHIN,
Clerk to the Commissioners.

The Secretary to the Board of Trade,
(Marine Department,) London.

Enclosure in No. 42.

The Commissioners for the harbour and docks of Leith do hereby, in virtue of "The Merchant Shipping Act, 1854," sects. 332 and 333, repeal the second Article of the "Regulations to be observed in piloting vessels at the Port and Harbour of Leith," approved of by Her Majesty in Council, on 28th July, and enacted and declared to take effect on 8th September 1856; and in lieu of said article, the Commissioners do hereby enact that no shipmaster or other person shall be bound to employ a pilot, either inwards or outwards.

The preceding is enacted and declared to take effect this day of eighteen hundred and sixty.

By order of the Commissioners.

John Phin, Clerk.

No. 43.

Petition of Pilots to the Honourable the Committee of Privy Council for Trade, Marine Department.

(No. 5,850.)

To the Honourable the Committee of Privy Council for Trade, Marine Department.

Honourable Sirs,

We, the undersigned licensed pilots for the home trade passenger ships, most respectfully solicit your consideration and assistance in our behalf in the matter of our calling.

When the licences was first granted to us it was understood that only persons well acquainted with the River Thames, and who had served their time upon it and had passed an examination as to their fitness, and whose whole time was devoted to river steam work without any other employment, would be the subjects of such privilege, and it was never expected that persons who was in full employ as masters of steam vessels was to be privileged with a licence, which at the present time is granted to them to our great injury, and not of material benefit to them.

We, therefore, in stating this grievance we suffer, most humbly solicit that no further licences be granted to the masters of steam vessels in the home passengers trade whereby they can pilot vessels which they command between Gravesend and London Bridge, but as originally intended, such licences be confined to persons such as above stated, whose whole employment and experience has been devoted to such service for which they received their licences, viz., piloting the Home Trade passenger ships on the River Thames.

We beg to submit to the Honourable Committee the following case. On Monday the thirtieth of April last, a screw steamer from Harbourg, belonging to the General Steam Packet Company, was boarded off Gravesend by a licensed man (the captain having no licence); the captain refused to take the licensed man, stating that he had orders from the Company so to do, the licensed man left, and the screw steamer proceeded up the river, and arriving off Greenwich, came in collision with a barge, which she sunk, and drowned a man, which might have been avoided had a pilot been on board, as it is a rare case that a sea-going captain can manage craft in a rapid tidal and crowded river.

We are further given to understand that it is the intention of the several Steam Packet Companies to apply for pilot licences for all captains in their employ; the captains themselves are disinclined to have such extra duties such licences would impose, and if such licences be granted, our licences would be useless, and the greatest possible injury would be inflicted upon us.

We therefore pray the assistance of the Honourable Committee, and that they would be pleased to yield us protection in this our emergency.

And as in duty bound we would ever pray.

Francis Wall, Pilot.	Edmund Liley, Pilot.
John Evans, Pilot.	William George Allen, Pilot.
William Edmond Evans, Pilot.	Edward John Allen, Pilot.
Richard Turner, Pilot.	Richard Rodway, Pilot.
Chas. T. Smith, Trinity House Pilot.	James Hambleton, Pilot.
George A. Petrie, Pilot.	John P. Ferguson, Pilot.

Gravesend, 15th May 1860.

No. 44.

Mr. Farrer to Mr. Francis Wall.

(No. 5,850.) Marine Department, Board of Trade,
19th May 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your memorial, signed by yourself and other licensed pilots, and I am to acquaint you in reply that my Lords see no reason to interfere with the very proper course which the Elder Brethren of the Trinity House are pursuing in accordance with the "Merchant Shipping Act, 1854," in granting to masters of vessels (who have shown that they are competent), licences enabling them to pilot their own vessels.

I am, &c.

Mr. Francis Wall, Licensed Pilot, Gravesend. T. H. FARRER.

No. 45.

Mr. Thomas Langman to Mr. Farrer.

(No. 7,677.)

Honble. Sir, 2, Victoria Dock Cottages, Plaistow Marsh, Essex, E.

Reading your valuable statement respecting the pilot laws in the port of London, I beg leave to ask your kind opinion respecting watermen piloting ships in the River Thames, as there are at least 200 or more watermen that having served an apprenticeship to men who are constantly employed in piloting a large number of steam and sailing ships in the coal and coasting trades in the winter, and in the East Sea trade in the summer. I do not mean to say that watermen having only been brought up in lighters and ferrying of passengers, are fit to be in charge of a ship, there is not any stated number of captains, or any stated age; any man that has been mate of a ship can maintain a captain's certificate of competency by passing the examination; if the same privilege was open to watermen to pass for pilots on the River Thames, that have been piloting ships that are exempt from compulsory pilotage, the pilotage would not be more than half the present rates.

For two years past, when a waterman is in charge of a ship, and a favourable wind, or in tow by a steam boat, when the same is exempt from compulsory pilotage, a pilot will force himself on board, or make the captain pay double pilotage; if it is a beating wind, or a dark night, the captain may seek who he thinks fit, the pilot is not to be found. It frequently occurs that watermen are called to ships in the night, or when no pilot is in attendance, and pilot the ship halfway to Gravesend, a pilot will force himself on board and demand the full pilotage. With respect to a pilot paying damage, the pilot is no more responsible than the unlicensed pilot; if the unlicensed pilot does damage, and he is worth property, the owners can make him pay for the same.

Many of the Gravesend pilots have not been seen or known to have charge of a ship at sea, or in the river, before they were in possession of a pilot's license.

I do not wish to speak disrespectful of the body of pilots, knowing many of them to be practical men, and of many years' experience in the river before they were pilots.

A waterman's pilotage from Gravesend to London, with collier screw boats, is from one pound to one pound five shillings; the average draught of water is from 14 to 18 feet. The screw steam ship "Rowen," carrying 1,000 tons; also the "James Dixon," 1,300 tons; the "William Cory," 1,500 tons. The above classes of screws are piloted in the London river by watermen only. We, the complainants, having from their early years been employed as the under clauses mentioned, and are unacquainted with any other calling: (viz.)

1. Piloting and assisting of all classes of ships from their moorings or docks to dry docks, and from moorings or docks, or elsewhere, to ballast wharves.

2. Piloting of British ships in the East Sea trade, coal and coasting trade, between London and Gravesend.

3. Launching of sailing ships and steam boats from builders' yards, and piloting the same in their trial trips.

Honble. Sir, your complainants humbly pray that your Honourable Board will take this case into your kind consideration, and grant to them licences for the above classes of ships, by being able to produce testimonials of many years' servitude.

We do not wish for compulsory licences or any stated sum for pilotage, that is to say, no captain shall pay a pilot if he, the captain, can pilot his own ship.

I remain, &c.

To Mr. T. H. Farrer, Secretary to the Marine Department of the Board of Trade. THOMAS LANGMAN.

No. 46.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 8,275.)

Sir, Trinity House, London, E.C., 18th July 1860.

Having brought under the notice of the Elder Brethren Mr. Booth's letter dated the 9th instant, transmitting by direction of the Lords of the Committee of Privy Council for Trade, for any observations the Elder Brethren may desire to offer thereon, copy of a letter from Mr. Thomas Langman, requesting, in the name of the watermen of the Thames, that certificates may be granted to them which would enable them to pilot certain vessels; I am directed to acquaint you for their Lordships' information that a memorial containing a similar request was addressed to this Corporation in May 1858, at which time the subject received due consideration, and the memorialists were then informed that the Elder Brethren did not consider it necessary to grant licences to persons for the sole purpose of taking charge of vessels not required to employ pilots, and I am further directed to acquaint you for their Lordships' information, that the Elder Brethren have been unable to discover any reason to induce them to take a different view of this subject than that above referred to.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No. 47.

N.B.—Copies of the "memorials and correspondence relative to the application by "certain free watermen of the port of London to the Trinity House, and the Board of "Trade, to be examined as to their competency to act as pilots in the said port of London, "and if found competent, to have permissive (not compulsory) licences granted to them; "and also of the list of harbour masters, shipowners, dock masters, and others who have "certified as to the expediency, utility, and equity of such permissive licences being "granted," were laid before Parliament in pursuance of an order of the House of Commons, dated 29th July 1859. (See Parliamentary Paper, No. 148, Sess. 2, 1859.)

No. 48.

Mr. Filgate to Mr. Farrer.

(No. 11,380.)

Sir, Dundrum, Clough, Ireland, 1st October 1860.

I, as agent of the Marquis of Downshire, who is the proprietor of this port, have been applied to by some of the masters of vessels coming here to have pilotage regulations made so as to prevent extortion and disputes. We are here within the bounds of the port of Newry, but I do not believe there is any pilotage authority for this place, nor is there any licensed pilot.

If it should be wished to have licensed pilots would you be good enough to tell me what steps should be taken and how far we could prevent unlicensed persons from acting as pilots; how far the payment of pilotage would be compulsory, many vessels frequenting this port not requiring them; and how far, if at all, the circumstance of the port being the private property of the Marquis of Downshire would affect the question?

I should be much obliged for any information you may give me with reference to the subject, which is becoming of some importance to us here.

I have, &c.

T. H. Farrer, Esq. F. FILGATE.

No. 49.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 11,861.) Trinity House, London, E.C.,

Sir, 1st November 1860.

Having brought under the consideration of the Elder Brethren your letter of the 12th ulto. transmitting, by direction of the Lords of the Committee of Privy Council for Trade, copy of a letter from Mr. Fitzherbert Filgate, on the subject of providing the port of Dundrum with pilots properly licensed, and signifying the request of their Lordships to be favoured with any observations the Elder Brethren have to offer thereon, I am directed to acquaint you, for their Lordships' information, that it appears to the Elder Brethren that the said port is within the district over which the Newry Navigation Company have jurisdiction, and that the pilots licensed by that authority are subject to a penalty for refusing to take charge of vessels under certain circumstances, within the district lying between St John's Point and Clogher Head.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No. 50.

Mr. Filgate to the Secretary, Marine Department, Board of Trade.

(No. 12,923.)

Sir, Hillsborough, Ireland, 1st December 1861.

Referring to your letter, (11,861,) 5th November 1860, enclosing copy of letter from the Elder Brethren of the Trinity House, with regard to the pilotage of Dundrum Harbour, I beg to state that, acting upon the opinion contained in said enclosure, I have had a correspondence with the secretary of the Newry Navigation Company (copy of which is enclosed).

You will perceive that the Newry Navigation Board declines to license pilots for Dundrum, stating that such a course would be illegal, and it appears, therefore, that no "pilotage authority" (such as is contemplated in the Mercantile Marine Act) exists for that harbour.

I beg, therefore, that you will be good enough to bring the subject again under the notice of the Lords of the Committee of Privy Council for Trade, and to inform me, on the part of Lord Downshire, whether their Lordships are prepared to erect such pilotage authority for Dundrum Harbour; if their Lordships will do so of their own motion, or whether it will be necessary for me to make a formal application for same, and if so, in what manner I should do so.

I have, &c.

The Secretary, Marine Department, Board of Trade. F. FILGATE.

Enclosure 1 in No. 50.

Sir, Navigation Office, Newry, 23rd November 1860.

I have to acknowledge the receipt of your letter of the 17th instant, enclosing copies of your correspondence with Board of Trade and the Elder Brethren of Trinity House respecting the licensing of pilots for the bay and harbour of Dundrum, as also the extent of jurisdiction of the Newry Navigation Company in reference thereto.

In reply I beg to inform you that a correspondence lately took place with Mr. Berthon, Secretary to the "Elder Brethren," upon the subject, and as the Board of Trade has given an opinion thereon, I think it better to furnish you with a copy of my letter to Mr. Berthon, which gives full extracts of the sections of the Act 10 Geo. 4. c. 126., conferring the powers of appointment of pilots upon the Newry Navigation Company, than to offer an opinion upon a purely legal question in reference to which the Government authorities, it is to be presumed, have had the advice of the law officers.

I have, &c.

To F. Filgate, Esq. Robert Plunkett, Secretary.

Enclosure 2 in No. 50.

Sir, Navigation Office, Newry, 27th October 1860.

In reply to your letter of the 17th instant, addressed to Mr. Glenny, late Secretary of the Newry Navigation Company, I beg to inform you that the jurisdiction of this Company, with respect to licensing pilots, extends only, as will be found by the 135th sect. 10 Geo. 4. Cap. 126, "to the "navigation of the river of Newry and the bay of Carlingford."

It is further marked by the 137th sect. of said Act,—

"That if any pilot, so licensed as a pilot, shall refuse or neglect to take charge, or conducting of any ship or vessel outward bound, upon proper notice being first given such pilot, or if any such pilot plying between St. John's Point and Clogher Head, or within the said navigation and river of Newry and bay of Carlingford, upon a gun being fired or ensign hoisted, or usual signal given from any ship or vessel, or in case such ship or vessel cannot be boarded without imminent danger, if such pilot shall refuse or neglect to lead the way or precede such ship or vessel with his boat, every such pilot shall for every such offence forfeit and pay any sum not exceeding five pounds."

I have, &c.

To F. Filgate, Esq. ROBERT PLUNKETT,
Secretary.

Enclosure 3 in No. 50.

SIR, Hillsborough, 26th November 1860.

REFERRING to your letter of 23rd, instant and to the correspondence with the Trinity House and Board of Trade, I beg to know whether your Board will grant licences for the port of Dundrum to such persons as may present themselves for examination as pilots and be approved of.

I have, &c.

Rob. Plunkett, Esq., F. FILGATE.
Secretary, Newry Navigation Company.

Enclosure 4 in No. 50.

SIR, Navigation Office, Newry, 28th November 1860.

I HAVE the honour to acknowledge receipt of your letter of the 26th inst., and in reply beg to inform you that it would be illegal on the part of the committee of the Newry Navigation Company to grant licences to pilots for the port of Dundrum.

I have, &c.

F. Filgate, Esq., ROBT. PLUNKETT,
Hillsborough. Secretary.

No. 51.

MR. FARRER to MR. FILGATE.

(No. 13,410.) Marine Department, Board of Trade.

SIR, 22nd January 1861.

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit for your information the accompanying copy of a letter from the Trinity House to the Board of Trade, dated the 12th December last, relative to pilotage at Dundrum Harbour.

I have, &c.

F. Filgate, Esq., Cavendish Hotel, Jermyn Street. T. H. FARRER.

Enclosure in 51.

SIR, Trinity House, London, 12th December 1860.

HAVING laid before the Elder Brethren your letter of the 4th instant, transmitting, by direction of the Lords of the Committee of Privy Council for Trade, a further letter with its enclosures which their Lordships have received from Mr. Filgate, relative to the appointment of pilots for Dundrum Harbour, and stating that their Lordships will be glad to receive any observations which the Elder Brethren may have to offer on Mr. Filgate's application, I am directed to acquaint you that this subject has again received the attention of the Elder Brethren, and that they submit for the consideration of their Lordships, that, having regard to the limited extent of trade at Dundrum, and to the circumstance that the said harbour is within the Newry customs district, the most desirable course to be pursued, to effect the object Mr. Filgate has in view, would be to extend the limits of the Newry pilotage district so as to include the harbour of Dundrum.

I herewith return the papers inclosed in your letter.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No. 52.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 12,292.)

SIR, Trinity House, London, E.C., 14th Nov. 1860.

A MEMORIAL having been addressed to the Elder Brethren of this Corporation by nine pilots licensed by the Trinity House at Newcastle, complaining that unlicensed men

act as pilots on board vessels to their prejudice, and requesting that their interests may be protected, I am directed to transmit to you the enclosed copy thereof, for the information of the Lords of the Committee of Privy Council for Trade.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

Enclosure in No. 52.

Copy of petition from certain North Sea Pilots of Sunderland praying for protection of their interests, interfered with by the employment of unlicensed men.

To the Elder Brethren of the Trinity House, Deptford,

We, the undersigned licensed North Sea and Baltic pilots of the port of Sunderland, most respectfully lay this our humble petition before you, praying that you will kindly take some steps to protect our interests.

We have all been examined at the Trinity House, Newcastle, by the Elder Brethren of that house, and granted licences as competent to pilot ships either in the North Sea or Baltic Sea.

This licence cost each one of us the sum of 2*l*. The restrictions of these licences are many, among which we might instance that no man is allowed to keep a beer house or public house, and that a return of the ships piloted by each one should be returned to Newcastle Trinity House.

In the course of the year a great many large ships leave Sunderland, and the captains not being acquainted with the coast, require the aid of a North Sea Pilot. For the last two years unlicensed men have been taking some of the ships and thus depriving us of our living.

We have both personally appealed and written to the Trinity House, Newcastle, for protection, but nothing whatever has been done in the matter.

We humbly pray therefore that you will kindly direct or take such steps as will ensure us protection; for which your humble petitioners will ever feel in duty bound, to thank.

RALPH WRIGHTSON. RALPH JACKSON.
JAMES CRUTE. JOHN WILSON.
DAVID REED. JOHN P. LOGAN.
JOHN FREDERICK. JOHN NEEDHAM.
GEORGE TELFORD.

42, Bramswell Street, Sunderland, Nov. 1860.

No. 53.

MR. FARRER to the SECRETARY, TRINITY HOUSE.

(No. 12,292.) Marine Department, Board of Trade, 17th November 1860.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 14th instant transmitting for the information of this Board copy of memorial from certain pilots, licensed by the Trinity House of Newcastle, complaining that unlicensed pilots are acting in that district to their prejudice.

I am to observe that the rights of duly qualified pilots are amply protected by Clauses 370 and 371 of the Merchant Shipping Act, 1854, which enables a qualified pilot to supersede an unqualified pilot, and imposes a penalty on an unqualified pilot who pretends to be qualified, or who refuses to give way to a qualified pilot.

The question is, however, one in which my Lords have no power to interfere.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 54.

MR. FARRER to the SECRETARY, TRINITY HOUSE, NEWCASTLE.

(No. 12,677.) Marine Department, Board of Trade, 28th November 1860.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you the accompanying copy of a petition from the down river pilots of the port of Newcastle-upon-Tyne, against the alleged contemplated extension by Newcastle Trinity House of the sea pilots' district into the river district from the Tyne and Northumberland docks.

My Lords will thank the Master and Brethren of the Newcastle Trinity House to favour them with any observations they may wish to offer upon the subject.

I have, &c.

The Secretary, Trinity House, Newcastle. T. H. FARRER.

Enclosure in No. 54.

Newcastle-upon-Tyne, 21st Nov. 1860.

The pilots of this port beg to enclose their humble petition to your Honourable Board, and will feel obliged by a line to acknowledge receipt, addressed to R. Airey, Esq., Pilot Office, Newcastle-on-Tyne.

To the Secretary of Her Majesty's Privy Council.

The humble Petition of the Down River Pilots of the Port of Newcastle-upon-Tyne, Sheweth,

That your petitioners have been informed that it is the intention of the Trinity House of this port to extend the sea pilots' district into the river districts from the Tyne and Northumberland docks, which will be the means of taking away the bread from upwards of sixty families.

Your petitioners beg to mention that theirs is a right conferred by Act upwards of a century ago, and that as river pilots they consider that the sea pilots cannot attend to both river and sea work. That your petitioners, to meet the views of owners of vessels, have reduced the footage from one shilling to eightpence, which has given great satisfaction. Your petitioners, therefore, hope that their case will receive your serious consideration, and that you will be pleased to give them an opportunity of sending a deputation from their body, who will be in a position to lay before you such evidence as cannot fail to show the great injury and great injustice which will be done them should the proposed alteration take place.

And your petitioners will ever pray.

Martin S. Wheldon.	James Gibson.	Joseph Blair.
Thos. Weldon, Sen.	Thos. Wheldon, Jun.	Robert Hogg.
Robt Donkin.	Henry Strachan.	William Smith.
John Young.	Joseph E. Morton.	Thos. Dawson.
Richard B. Young.	Hardy Ogle.	Thomas Cowan.
Peter T. Wheldon.	Thos. Freeman.	William Maxwell.
Allan Strachan.	Leonard Brown.	Roger Lumsdon.
Wm. Turnbull.	William Brown.	Joseph Blackett.
John Hotter.	Mathew Brown.	Wm. Duglish.
Michel Wheldon	Geo. W. Morrison	Anthony Redhead.
John Dixon.	Robt Wheldon.	Geo. Forster.
Matthew Proctor Morton.	T. Maddison.	Thos. Forster.
James Morton.	Peter Cree.	Thos. Forster.
James Foster.	Thomas Maxwell.	Isaac Blakey.

No. 55.

Mr. Currie to Mr. Farrer.

(No.13,032.)

Sir, Trinity House, Newcastle, 4th Dec. 1860.

I beg to acknowledge the receipt of your letter of the 28th ult., with a copy of petition from the river pilots of Newcastle-upon-Tyne. I am directed by this Board t inform you that the pilotage in the port of Newcastle is regulated by a private Act Parliament, 41 Geo. 3., cap. 86, and distinction is made between sea and river pilot distinct boundaries being assigned to each.

Of late years two docks have been formed in the river, the one, the Northumberlan Dock, on the north, and the Jarrow or Tyne Dock on the south side of the river. Th former is within one mile of the sea pilots' boundary, the latter within three quarters of mile of the same boundary.

This state of things, which involves the necessity of employing both river and s pilots, notwithstanding the shortness of the intervening distance, has led to much cor plaint on the part of the shipowners, coalowners, and merchants, who object to p double pilotage under such circumstances.

Very lately a numerously signed memorial was presented by them to this Board the subject. The memorialists attended and were heard by the Board, and a simil course was pursued with the sea and river pilots.

After much consideration it was felt by the Board that the present system could n be continued, and that the interest of shipping and commerce required an alteration, which the limits of the sea pilots should be so extended, so as to comprehend the t docks.

At the same time, it was felt to be desirable that the change should not be immediate, but deferred until the 1st of April 1861, in order that the river pilots or such of them as might desire it, might in the interval prepare themselves to act as sea pilots, it being the intention of the Board to license such of them, as, after due examination, might be found duly qualified.

To effect this object a byelaw will have to be passed by this House, which will in due time be submitted for confirmation under the provisions of the Shipping Act.

I am, &c.

T. H. Farrer, Esq., Marine Department, Board of Trade, Whitehall, London. JOHN CURRIE, Secretary.

No. 56.

Mr. Booth to Mr. Wm. Daglish, River Pilot.

(No. 2,850.) Marine Department, Board of Trade, 11th March 1861.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 2nd inst., asking for an interview for a deputation from the river pilots of Newcastle, on the subject of the contemplated extension by the Newcastle Trinity House of the limits of the sea pilots district up the River Tyne.

I am to acquaint you in reply that the Newcastle Trinity House had power to modify their pilotage regulations, and my Lords are of opinion that their proposals in the above matter are judicious and are called for by the circumstances of that port.

I am to observe that ample notice of the proposed change of the sea-pilotage limits has been given to the river pilots so as to enable them to qualify as sea pilots.

Under these circumstances my Lords do not think that any good would result from an interview.

I am, &c.

Mr. Wm. Daglish, River Pilot, 26, Richmond Street, Newcastle-on-Tyne. J. BOOTH.

No. 57.

(No. 6,959.) Marine Department, Board of Trade. 14th July 1862.

Mem.—The Trinity House of Newcastle have made a byelaw defining the limits of the sea and river pilots of the Tyne, and reducing the pilotage rates.

This byelaw will be submitted to Her Majesty at the next Council.

No. 58.

Mr. Farrer to the Secretary, Trinity House, Newcastle.

(No. 11,664.) Marine Department, Board of Trade, 8th November 1861.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for any observations which the Corporation of the Trinity House of Newcastle may have to offer thereon, the accompanying copy of a memorial addressed to this Board by certain pilots of the port of Hartlepool.

I have, &c.

The Secretary, Trinity House, Newcastle. T. H. FARRER.

Enclosure in No. 58.

The Right Honourable the Lords of the Privy Council for Trade.

The humble memorial of the undersigned pilots at the Port of Hartlepool, in the County of Durham.

Sheweth,

That your memorialists are and have been plying their vocation as pilots in the above port for the number of years set opposite their respective names, and that they received their respective licences from the Trinity House at Newcastle-upon-Tyne.

That in the month of August 1860, a deputation from the said Trinity House attended at Hartlepool, and amongst other things required that the pilots of the port should initiate a Friendly Society, which

had for its object the making a provision for the relief of superannuated infirm qualified pilots or their wives, widows, or children.

That your memorialists in conjunction with several other pilots connected with the port, at once promised to give the suggestion their immediate and careful consideration, and that with this view they instituted inquiries of the pilots at West Hartlepool as to and concerning a Friendly Society which the latter had formed there at the instance of the pilotage committee of that district, and which was intended to attain the same objects as those expressed by the deputation aforesaid.

That the result of these inquiries went to show that the appropriation of the contribution of the pilots at West Hartlepool was vested entirely in the local committee appointed there with the sanction and permission and at the request of the said Trinity House and the pilots themselves.

That your memorialists accordingly prepared and sent a memorial to the said Trinity House, of which the following is a copy:—

" To the Honourable the Master, Pilots, and Seamen of the Trinity House of Newcastle-upon-Tyne.

" The humble memorial of the Pilots of Hartlepool,—

" Sheweth,

" That your memorialists are pilots in the port and residing in Hartlepool, and all receive from and " hold their licence under your Honourable House.

" That your memorialists are desirous of establishing a Friendly Society upon the same principles as " one already established by the pilots of West Hartlepool.

" That your memorialists have had two meetings and have duly considered the propriety of having " such a society formed, and have resolved,—

" 1st. That the society about to be formed shall be called the Hartlepool Pilots Friendly Society, all " the members of which shall be pilots holding licence under your Honourable House.

" 2nd. That the pilots, members of this society, shall pay to the secretary (for the time being) " sixpence for every vessel which each of them have been pilot of into and out of Hartlepool or the " River Tees at the end of every month.

" 3rd. That the members shall commence to pay from the first day of November One thousand eight " hundred and sixty.

" 4th. That the secretary shall pay into Messieurs Jonathan Backhouse and Cos. bank at Hartlepool " all the monies that he shall receive at the beginning of every month in the name of the trustees of " the society for the time being.

" 5th. That three of the sub-commissioners of pilotage and the pilot master (for the time being) with " five pilots, members of this society, to be elected annually, shall be appointed a committee for the " purpose of carrying into effect the above resolutions, and for the better regulating and management " of this society, according to rules which shall hereafter be made.

" 6th. That your memorialists humbly beg to represent that there are certain young men holding " acting orders under your Honourable House which are at present paying sixpence for every vessel " which they are pilot of, into and also out of Hartlepool.

" 7th. Your memorialists humbly pray that you will be favourable to the above resolutions, and " honour them with your sanction, and that you will grant that those young men be allowed for the " future to pay the same as all the other pilots shall pay into the Hartlepool Pilots Friendly Society, " that this society now about to be established may be permanent.

" And your memorialists as in duty bound will ever pray.

" Thomas Watt, Senr.	Robert Hodgson.	Richard Hodgson.
" Thomas Pounder, Senr.	Thomas Pounder.	Richard Pounder.
" Thomas Pounder.	Robert Pounder.	Joseph Snowdon.
" William Spence.	John Horsley.	Nicholas Denton.
" Geo. Horsley, Senr.	Thomas Watt, Jr.	Richard Sharp.
" Maddison Horsley.	John Watt.	Thomas Cooper.
" Robert Spence.	Johnson Boagey.	Michael Snowdon.
" Robert Hodgson.	William Watt.	Francis Boagey.
" William Hodgson.	Richard Hunter.	James Pounder.
" William Hodgson.	J. H. Robinson.	Francis Watt.
" Thomas Horsley.	C. Snowdon.	Peter Watt.
" James Harrison.	John Hodgson.	Thomas Pounder.
" Thomas Horsley.	Thomas Hodgson.	William Pounder.
" Cuthbert Coulson.	Thomas Pounder.	William Coulson.
" Richard Robinson.	Robert Boagey.	J. T. Robson.
" John Brown.	Matthew Hunter.	Wm. Horsley.
" Bart. Huntridge.	S. Boagey.	Richard Hunter.
" Thomas Watt.	John Horsley.	George Horsley.
" Thomas Horsley.	George Horsley.	John Horsley.
" Cuthbt. Hodgson.	Thomas Pounder.	Robert Pounder.
" Eden Pounder.	John Boagey.	Saml. Hodgson.
" Robinson Carter.	Wm. Horsley.	W. D. Spence.
" Wm. Snowdon.	J. H. Robinson.	Richd. Pounder."

That on the 19th November 1860, a deputation, consisting of two of the sub-commissioners of pilotage at Hartlepool, namely, J. P. Denton, Esquire, J. P. George Wilkinson, Esquire, shipowner, and five pilots, attended a special meeting held at the said Trinity House for the purpose of establishing the society in question.

That at this meeting no practical conclusion was arrived at, nor was any intimation given by the brethren in attendance to the deputation as to the course which the pilots should pursue in connexion with the formation of such society.

That your memorialists have been informed and believe that a short time after the meeting referred to in the preceding paragraph, the sub-commissioners of pilotage at Hartlepool unanimously resolved to and did resign their office as sub-commissioners.

That for obvious reasons your memorialists are not acquainted with the grounds of such resignation, but respectfully beg to direct your Lordships' attention to the fact.

That on the 22nd of May last, another deputation from the said Trinity House came to Hartlepool, but previously thereto had summoned all the pilots resident at Hartlepool to attend before them; that they accordingly did attend, when they were requested by such deputation to pay to the said Trinity House the sum of sixpence per ship piloted into, and sixpence per ship piloted out of the port of Hartlepool. The pilots then in attendance including your memorialists refused to comply with this demand. That the deputation then stated that if the pilots persisted in their refusal they (the Trinity House) would make pilots until there would not be a livelihood for the then present batch of pilots.

That on the 27th of August last another deputation from the said Trinity House attended at Hartlepool, and previously summoned the pilots to attend before them. That at this meeting the deputation stated that "there were no two ways about the pilots paying into the fund, for they passed "a resolution that all pilots under 55 years of age must pay." That the roll of the pilots at Hartlepool was then called over by the deputation, and each required to assent to or dissent from the payment of the contribution in question to the said Trinity House. That some of the pilots in attendance agreed to pay the amount, but your memorialists had good reason to believe that their assent was obtained under menace and fear of the consequences of their refusal to comply with the requirement of the deputation in question.

That your memorialists could not conscientiously agree to comply with the deputation's requirements for the reasons which will hereafter more particularly appear.

That on the 19th day of September last they were served with a notice of which the following is one of the copies:—

"To Robert Hodgson, one of the pilots appointed for piloting ships and vessels into and out of the "port of Hartlepool,—

"We, the master, pilots, and seamen of the Corporation of the Trinity House of Newcastle-upon-"Tyne, do hereby order and summon you personally to be and appear before us at the Trinity Hall "in Newcastle-upon-Tyne aforesaid, on Monday the seventh day of October, at ten o'clock in the "forenoon of the same day, then and there to answer such matters and things as shall be laid to your "charge respecting your said office of pilot, and hereof fail not as you will answer to the contrary at "your peril, and also to bring your branch.

"Given under the seal of the said Corporation at the Trinity Hall in Newcastle aforesaid, this "17th day of September, in the year of our Lord 1861.

"JOHN CURRIE, Secretary."

That in accordance with the notice referred to in the preceding paragraph, your memorialists appeared on Monday the seventh of October last before the Brethren of the said Trinity House at Newcastle-upon-Tyne in accordance with the exigency of the above notice; that at such meeting they were severally requested to show their pilot's licence, with which request they complied. That the Brethren then in attendance, without assigning any reason for their requirement, demanded that the licences of the pilots in attendance should be at once laid upon the table. To this demand your memorialists refused to comply, whereupon they were without further explanation immediately ordered out of the Trinity House.

That your memorialists' reason for the above refusal was that some of their brother pilots had been summoned to appear at the said Trinity House on the 15th of July last, and had then been required to lay down their respective licences. That they complied with such demand and were ordered by the Brethren then in attendance to go home. That these licences were kept for a period of about three months, and although the parties who had deposited the same memorialized the Brethren to return them yet they were not returned, and their return was refused except on condition that they signed an agreement to pay the contribution herein-before referred to, to the said Trinity House, and that for the purpose of again obtaining possession of their licences they signed such agreement.

That on the 23rd ultimo the following notice was placarded throughout the town and docks of Hartlepool.

"Notice to master mariners is hereby given that the following named men are no longer to act as "pilots (at the port of Hartlepool) under the jurisdiction of this House, viz.:—

"George Horsley, Robert Hodgson, Richard Robinson, Peter Watt, and Cuthbert Coulson.

"Any one employing them as pilots after this notice will be liable to a heavy penalty.

"By order of this Board,

"Trinity House, Newcastle, "JOHN CURRIE, Secretary."
October 17, 1861."

That on the 2d instant your memorialist Robert Hodgson was served with a notice of which the following is a copy:—

"To Mr. Robert Hodgson.

"We, the master, pilots, and seamen of the Trinity House of the town of Newcastle-upon-Tyne, in "the county of Newcastle-upon-Tyne, for certain good causes and considerations us hereunto moving "and inducing, do hereby revoke and determine and make void the licence and authority heretofore "granted by us to you the said Robert Hodgson to pilot, navigate, and conduct ships or vessels from, "into, and within the port of Hartlepool, and of which we give you this notice. And we further "demand and require of you forthwith to deliver up to us the licence or authority granted to you by "us as such pilot as aforesaid.

"Given under our Common Seal this first day of November, in the year of our Lord One thousand "eight hundred and sixty-one.

"JOHN CURRIE, Secretary. (L.S.)"

That your memorialists do not object to, but on the contrary decidedly approve of the establishment of a fund which has for its object the purposes herein-before set forth, and will gladly contribute thereto, but that on referring to the Trinity House Act of the 20th June 1801, being the 41st Geo. 3, chap. 86, they cannot find any power vested in the Trinity House of Newcastle-upon-Tyne, obliging

your memorialists to contribute towards the fund in question, and they respectfully submit to your Lordships that they are warranted in arriving at such a conclusion by the fact of the said Trinity House never having required the pilots of Hartlepool to contribute to such a fund until the month of August 1860.

That on reference to the 331st and 333rd sections of the Merchant Shipping Act, 1854, power would appear to be given to all pilot authorities to make byelaws from time to time with the consent of Her Majesty in Council, which have for their object the following purposes, viz.—

" To establish, either alone or in conjunction with any other pilotage authority or authorities, funds " for the relief of superannuated or infirm qualified pilots or their wives, widows, or children, or to " make any new regulation with respect to any funds already applicable to the above purposes or any " of them, with power to determine the amount, time, manner, and persons, (such persons to be in " the service of such pilotage authority) to and in which, and by and upon whom the contributions in " support of such existing or future funds levied, and further to declare the persons or class of persons " (such person or class of persons being confined to men in the service of such pilotage authority, their " wives, widows, or children) entitled to participate in the benefits of such existing or future funds, " and the terms and conditions upon which they are to be so entitled."

Your memorialists beg also respectfully to direct your Lordships' attention to the 334th section of the Merchant Shipping Act, wherein it is provided that every byelaw proposed to be enacted by any pilotage authority in pursuance of the foregoing powers shall, before it is submitted to Her Majesty in Council for Her assent, be published in such manner as may from time to time be prescribed by the Board of Trade.

That your memorialists had no intimation of the intention of the said Trinity House to apply to Her Majesty in Council (in accordance with the 334th section of the Merchant Shipping Act before quoted) for confirmation of byelaws which related either to the fund in question or to any other subject within the range of their jurisdiction.

That your memorialists respectfully submit to your Lordships that under the above circumstances the suspension of your memorialists' licences by the said Trinity House was arbitrary, unjust, and unlawful, and for the following amongst other reasons:—

That they the memorialists from the first signified their readiness to subscribe to the formation o the fund contemplated by the 333rd section of the Merchant Shipping Act, 1854, in precisely the same way as the pilots of West Hartlepool have been allowed to do with the sanction of the said Trinity House.

That the Act 44 Geo. 3, chap. 86, has no reference to and cannot be construed as having reference to any such fund.

That the 331st, 333rd, and 334th sections of the Merchant Shipping Act, 1854, clearly determine the powers of the said Trinity House with reference to the fund in question, and that had there been any intimation given to your memorialists and the other pilots at Hartlepool of an intention on the part of the said Trinity House to apply to Her Majesty in Council for leave to make byelaws, having for their object the establishment at Hartlepool of the fund in question, your memorialists would as in duty bound have co-operated with the said Trinity House towards carrying out such byelaws, but in such a case they would have respectfully approached Her Majesty through your Lordships for the purpose of showing that the monies derived from the fund in question should be appropriated by persons within the district of the contributors, in order that the latter might have a legitimate guarantee that all the contributions received would be expended for the direct benefit of such contributors.

Your memorialists, in conclusion, humbly pray that your Lordships will be pleased to grant such measure of relief to your memorialists in the premises as to your Lordships may seem fitted to obtain for them justice at the hands of the said Trinity Board.

And your memorialists as in duty bound will ever pray.

Robert Hodgson.	(Pilot 16 years.)
Peter Watt.	(„ 13 „)
Cuthbert Coulson.	(„ 11 „)
Richard Robinson.	(„ 11 „)
George Horsley.	(„ 8 „)

No. 59.

Mr. Currie to Mr. Farrer.

(No. 12,178.) Trinity House, Newcastle-upon-Tyne,

Sir, 19th November 1861.

I am directed by the Board to acknowledge the receipt of your letter of the 8th instant, with copy of a memorial signed by five pilots of the port of Hartlepool.

The offence committed by those pilots consists in their not delivering up their licences or branches when required by the Board in accordance with the 352nd sect. of the Merchant Shipping Act, 1854. The Court of Queen's Bench in a similar case has decided that this power is vested in pilotage authorities; it is absolutely necessary to enable them properly to discharge their responsible duties, and the Board of this House feel themselves entitled, and, for the sake of the maintenance of their authority, bound to enforce it.

It has been the desire of the Board that the pilots should, for the advantage of themselves and their families, establish benefit societies, and which is indeed more necessary

since the passing of the Harbours Act of last session, seeing that they cannot hereafter rely upon a continuance of that casual assistance from the funds of the House. They would observe that all the pilots at Hartlepool, with the exception of the memorialists, have concurred in this desirable object, to assist which the Board have transferred a sum of 214*l.* in aid of the funds of the Society, and have also in consideration of the pilots contributing towards it, relieved each of them so contributing from the payment of the annual sum of ten shillings formerly paid for their branches. This subject has nothing to do with the offence committed by the five pilots in question, but the Board have thought it right to explain their views on the subject, and I am directed to add that although they deem it important that a benefit society should exist for the sake of the pilots themselves they yet disclaim the having exercised or intending to exercise any coercive power for this purpose.

I have, &c.

T. H. Farrer, Esq.,
Board of Trade, London.

JOHN CURRIE,
Secretary.

No. 60.

Mr. Farrer to the Secretary, Trinity House, Newcastle.

(No. 12,178.)

Marine Department, Board of Trade,
21st November 1861.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 19th inst., containing the observations of the Newcastle Trinity House upon the memorial of the pilots of Hartlepool, in which they complain of the proceedings of that Corporation in unjustly depriving them of their pilots' branches.

I am to observe that the reason given by the Corporation for the withdrawal of the pilots' branches, is that the pilots refused to deliver them up when required by the Trinity House to do so, in pursuance of section 352 of the Merchant Shipping Act, 1854, but it is not stated in your letter for what reason the Trinity House thought fit to call upon the pilots to deliver up their licences.

The refusal to comply with the demand of the Trinity House admitted by the pilots, is that they question the right of the Corporation to require the delivery of their branches upon the grounds alleged in their memorial, namely, because they had preferred contributing to a friendly society of their own under local management, to contributing towards a pilotage fund which the Newcastle Trinity House proposed to establish, and which they expected the pilots to join in supporting.

It is obvious that without further explanation, not only why the pilots were suspended, but why their branches were in the first instance demanded, my Lords can give no satisfactory answer to the memorialists, and although their Lordships are not aware that they have any direct jurisdiction in the case, they feel bound to point this out, more especially as the pilots' memorial states that their suspension arose out of a dispute about the establishment of a benefit fund, and at the same time calls attention to the provisions which the Legislature has made for the very purpose of establishing such funds, which it appears have not been put in force, but which would, had they been put in force, have afforded the means of determining all disputes.

I have, &c.

Secretary, Trinity House, Newcastle.

T. H. FARRER.

No. 61.

Mr. Currie to Mr. Farrer.

(No. 12,664.)

Trinity House, Newcastle-upon-Tyne, 3rd Dec. 1861.

Sir,

I have to acknowledge the receipt of your letter of the 27th ult. in reply to my communication of the 19th of the same month.

The Board direct me to observe that the Merchant Shipping Act renders it obligatory upon pilots to deliver up their licences when required by the pilotage authority under which they act. It has been the desire of this Board only to exercise this power after careful investigation, and in cases imperatively requiring it, and they feel that it would be impossible to maintain their authority if, in every instance, they have to give a detailed account of the reasons by which they have been governed.

There are at present upwards of 800 pilots under the jurisdiction of this House, and every effort has been made to encourage and protect them as well as to ensure the efficiency of the service.

I have, &c.
JOHN CURRIE,
Secretary.

To T. H. Farrer, Esq., Marine Department,
Board of Trade, Whitehall, London.

No. 62.

Mr. Farrer to Mr. Turnbull.

(No. 12,664.) Marine Department, Board of Trade,
Sir, 9th December 1861.

With reference to the memorial of the pilots of Hartlepool, in which they complain of the proceedings of the Corporation of the Newcastle Trinity House in unjustly depriving them of their pilot branches, I am directed by the Lords of the Committee of Privy Council for Trade to acquaint you, for the information of the members, that having referred their representation for the observation of the Newcastle Trinity House, my Lords are informed by that Corporation that the pilots' licences were withdrawn because the pilots refused to deliver them up when required by the Trinity House to do so, and the Corporation referred to the 352nd section of the "Merchant Shipping Act, 1854," which gives them power under such circumstances to deprive the pilots of their branches.

I am to add that my Lords have requested the Trinity House of Newcastle to acquaint their Lordships with their reasons for calling on the pilots to deliver up their licences, but the Corporation declined to give the reasons by which they have been governed, stating that it has been their desire to exercise the power given to them only after careful investigation and in cases imperatively requiring it, and that they feel that it would be impossible to maintain their authority if in every instance they have to give a detailed account of the reasons by which they have been governed.

Under these circumstances, my Lords, having no jurisdiction to require the Trinity House to give their reasons, are unable to interfere further in the matter.

I have, &c.
T. H. FARRER.

E. Turnbull, Esq., Solicitor, near Hartlepool.

No. 63.

Mr. Farrer to the Secretary, Trinity House, Newcastle.

(No. 3,047.) Marine Department, Board of Trade,
Sir, 17th March 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Corporation of the Trinity House of Newcastle, the accompanying copy of a memorial addressed to this Board by the sea and river pilots of the ports of Shields and Newcastle on Tyne.

With regard to the first point adverted to in the petition, namely, the mode of distributing the compensation payable by Her Majesty's Government to Corporations and others in consideration of the abolition of the differential rates on foreign ships, I am to observe that the distribution of this compensation rests entirely with the Trinity House and not with Her Majesty's Government. The Board of Trade have only to observe that it seems to them that if it can be done without injustice it would be well to get rid of the cumbrous and expensive system of accounts for each vessel which has hitherto been necessary.

As regards the second point, namely, the pilot fund and the contributions of the pilots, two distinct allegations are made.

(1.) That certain sums are received by the Trinity House from the pilots which are not, to the knowledge of the memorialists, duly accounted for.

Upon this point, my Lords desire to observe that the 337th section of the Merchant Shipping Act, 1854, requires every pilotage authority to deliver periodically to the Board of Trade a return of "the receipt and expenditure of all monies received by or on behalf of such authority, or by or on behalf of any Sub-Commissioners appointed by them in respect of pilots or pilotage," within the port or district under the jurisdiction of such authority, and that a return has been regularly made by the Newcastle Trinity House. But the memorialists allege that the returns so made do not contain the particulars of the sums to which they refer in their petition.

My Lords will thank the Trinity House to favour them with an explanation on this point, and they request that the Corporation will say whether the statements of the pilots as to the contributions are correct, and that they will point out how they are accounted for in the returns forwarded to the Board of Trade.

(2.) The memorialists allege that the Trinity House have been in the habit of claiming and receiving sums from Her Majesty's Government in cases where no pilot was or could be employed.

My Lords conceive that upon this point there must be some misapprehension, but they will be glad to receive any observations on the subject which the Corporation of the Trinity House may have to offer.

I am, &c.

To the Secretary, Trinity House, Newcastle. T. H. FARRER.

Enclosure in No. 63.

To the Right Honourable Her Majesty's Privy Council for Trade.

The humble petition of the Sea and River Pilots of the Ports of Shields and Newcastle-upon-Tyne, Showeth,

That Her Majesty's Government has been pleased in their wisdom to abolish by Act of Parliament all differential dues on foreign shipping, and that the passing of the above Act of Parliament into law subjects your petitioners to sacrifice one third their living; in consideration of this Her Majesty's Government has in the said Act made liberal provisions by way of compensation to all corporations, body of persons or person, whose living or interest may be affected by the said Act of Parliament passing into law.

We, therefore, your petitioners, beg leave to make known to your Lordships in Council that your petitioners have petitioned the Trinity House of Newcastle-upon-Tyne to discontinue the payment of the said foreign pilotage as reciprocity pilotage, and commence to pay the said foreign pilotage by way of compensation as specified in the said Act of Parliament, and the answer that your Lordships' petitioners have received from the Trinity House of Newcastle-upon-Tyne was to the following effect:—

That the pilots must continue to enter their foreign pilotage tickets the same as before the Harbours Bill received the sanction of Parliament.

We, therefore, your Lordships' petitioners, knowing that Her Majesty's Government having chosen the year 1860 as an average for compensation for 10 years to come, therefore your petitioners feel duly sensible that to continue to enter the foreign pilotage tickets as required by the Trinity House of Newcastle-upon-Tyne is in direct opposition to the Passing Tolls and Harbours Bill now passed into law, and that if your petitioners were to comply with the demands of the Trinity House of Newcastle-upon-Tyne, that such a procedure would only complicate the payments and spread dissatisfaction throughout the Trinity House, and likewise the whole of the pilots employed on the River Tyne, your Lordships' petitioners judging that every year after 1860 will greatly exceed the year set apart by the Act of Parliament for the payment of the same, as every succeeding year after 1860 will be on the increase.

We, your petitioners, pray your Honourable Council to reverse the decision of the Trinity House of Newcastle-upon-Tyne, by prohibiting the foreign pilotage tickets, and cause the said compensation pilotage to be paid in equal sums to all pilots in active service on the River Tyne.

Pilots' Fund.

Your Lordships' petitioners further beg leave to state that they have paid the sum of 1*s.* for every ship or vessel that is piloted by them into the Trinity House of Newcastle-upon-Tyne, and that the river pilots up and down the Tyne have likewise to pay the same, which amounts to 3*s.* for every ship or vessel navigating the Tyne with a pilot on board, and that the above sum has been paid into the Trinity House for a period of 59 years, such sum to go towards the payment of the pilot masters for their services, and all over and above what was required to pay the said pilot masters was to be paid into the Trinity House for a charitable fund, towards keeping old pilots, pilots' widows, and orphan children of deceased pilots. In connexion with the above fund, your petitioners are given to understand that there are various sums, such as fines, forfeitures, and unclaimed pilotage, which ought to be added to the capital of the above fund, and if such sums were set down to the credit of the pilots your Lordships' petitioners feel duly sensible that the sum now in the hands of the Trinity House Authorities must be immense and beyond their powers to ascertain the amount. The surplus or unclaimed pilotage consists of monies which your Lordships' petitioners consider that they are not entitled to, either direct or indirect from Her Majesty's Exchequer, knowing that the Trinity House of Newcastle-upon-Tyne have assumed the authority to charge Her Majesty's Treasury with four reciprocity pilotage tickets instead of two, which are as follow:—In every ship or vessel entering into the port of Shields, such ship or vessel having one pilot in and out of the port, the pilot employed by such ship or vessel being entitled to one ticket each way (one in and out), and if such ships or vessels should receive their cargo at Shields there are consequently no river pilots employed either up nor down the river. Under these circumstances the Trinity House of Newcastle take upon themselves to charge Her Majesty's Treasury with two extra tickets, the same as if such ship or vessel had been piloted by a river pilot from Shields to the port of Newcastle-upon-Tyne and from

thence to Shields. We therefore dispute the authority of the Trinity House of Newcastle-upon-Tyne to make such demands upon Her Majesty's Exchequer, and if such tickets for unclaimed pilotage be allowed by the Government it is your Lordships' petitioners' opinion that the above unclaimed pilotage ought to be added to the credit of the pilots' fund, and if such tickets or unclaimed pilotage be not lawful your petitioners feel duly sensible that the unclaimed pilotage referred to must be unlawful, and consequently an imposition upon Her Majesty's Treasury.

We, therefore, your Lordships' petitioners, may humbly pray Her Majesty's Privy Council for Trade to institute an inquiry into the funds of the Trinity House of Newcastle-upon-Tyne, that your Lordships' petitioners may be duly informed annually of the income and expenditure of the pilots' fund, and should your Lordships' petitioners' request be granted, as in duty bound, your Lordship's petitioners will ever pray.

Signed by JOHN HUTCHINSON, and by 209 other pilots.

No. 64.

MR. CURRIE to MR. FARRER, MARINE DEPARTMENT, BOARD of TRADE.

(No. 3,969.)

SIR, Trinity House, Newcastle-upon-Tyne, 3rd April 1862.

YOUR letter of the 17th March, No. 3,047, has, with the accompanying memorial from the sea and river pilots, been laid before and considered by this Board.

That letter correctly states that the distribution of the compensation payable by Her Majesty's Government on the abolition of the differential rates rests entirely with this Board, but the latter are not the less willing to afford such explanation as may be desired, their only object being faithfully to discharge the trust reposed in them, although it brings no pecuniary advantage to the House. The Board agree with the Committee of Privy Council for Trade that it is expedient to get rid as far as may be practicable without injustice of the cumbrous and expensive system of special accounts for each vessel, and the matter is now under their consideration, but it is one of very considerable difficulty.

The first allegation to which the attention of the Board is directed is the statement that certain sums are received by the Trinity House from the pilots which are not, to the knowledge of the memorialists, duly accounted for. It is necessary on this to observe that no application has ever been made to this Board for the information referred to, and that they have no doubt that the purposes to which the money is applied are perfectly well known to the pilots themselves.

A payment, not of one shilling for every ship but of sixpence for every vessel inwards, and the like amount for every vessel outwards, is made by the sea pilots. The money is paid to the pilotmaster at South Shields, who at the end of every quarter accounts for it to the Secretary of this House, who allows him thereout whatever amounts he may during the quarter have disbursed in pensions to old or infirm sea pilots, their widows and children, and he is likewise allowed the expenses incurred at the pilot office. Whatever balance remains is immediately paid into the bank to the credit of the South Shields Pilot Fund. That fund is managed gratuitously by the Board; it consists of several thousand pounds, is in a sound and satisfactory state, the amount not immediately required being invested at interest, which of course as it accrues likewise goes to the credit of the fund. To this account also goes any sum that may have been received for pilotage, and which remains unclaimed. This fund is kept entirely separate and distinct from the receipts arising from the general property of the House, with which it is in no way mixed up.

The next allegation is the charge that the Trinity House has been in the habit of claiming and receiving payment from Her Majesty's Government in cases where no pilots are or could be employed, and upon which point the Committee of Privy Council for Trade observe that they conceive there must be some misapprehension.

On this head I am to remark that no payment was ever made by Her Majesty's Government to this House until an account specifying each ship had been rendered and the account examined on their behalf by the Secretary of the Trinity House of London. This account when transmitted to him was accompanied by a ticket signed by the captain of each foreign vessel, which had been previously handed to the Board by the pilot who received it. Of course no sums were included in the account except those warranted by the tickets and the Secretary of the Trinity House of London (Mr. Berthon), checked the account claimed by the tickets transmitted, and only certified the amount so vouched.

It is now desired by the pilots to get rid of those tickets, and to have a division of the compensation provided by the Bill of last session amongst the then existing pilots without regard to those tickets. It must be admitted that the system of tickets is troublesome, and that it leads to long cumbrous accounts, but this Board doubt the practicability of dispensing with them. They do not consider that the compensation ought to be the exculsive right of the then pilots, and to be divided by a mere numerical

division without regard to the services hereafter performed. It would not be proper that the idle and industrious pilot should be placed in the same category—that the pilot who had none or few foreign ships should receive the same amount as the man who by his exertions and hard labour had obtained a large number. It seems to the Board but right that the pilots who actually do the work during the ten years that the compensation is to last are the persons who ought to receive the remuneration due for its performance, notwithstanding that some of them may have become pilots after 1861. The system of tickets accurately shows the pilots who earned them, and a distribution of the compensation money in the proportion that each man's tickets bears to the whole sum, appears to this Board the most reasonable, equitable, and, indeed, the only system to ensure to each pilot the remuneration properly due for his services.

At the same time the Board would be glad, if it were possible, to simplify the system of tickets, but as yet they have been unable to devise any other plan which would in the whole be more advantageous than that at present existing.

I am, &c.

T. H. Farrer, Esq., JOHN CURRIE,
Marine Department, Board of Trade, Whitehall, London. Secretary.

No. 65.

Mr. Farrer to the Secretary, Trinity House, Newcastle.

(No. 3,969.) Marine Department, Board of Trade,
Sir, 10th April 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 3rd instant, containing the observations of the Newcastle Trinity House, upon the allegations contained in the memorial presented to this Board by the sea and river pilots of the ports of Shields and Newcastle.

My Lords desire me to call your attention to the omission on the part of the Corporation of the Newcastle Trinity House, to point out as requested in this Board's letter of the 17th ult., No. 3,047, where, and how the receipt and expenditure of the sums referred to in the memorial of the pilots are made to appear in the returns, which by the Act of Parliament the Trinity House is bound to send to this Board.

I am, &c.

The Secretary, Trinity House, T. H. FARRER.
Newcastle-on-Tyne.

No. 66.

Mr. Farrer to R. Ingham, Esq., M.P.

(No. 3,969.) Marine Department, Board of Trade,
Sir, 10th April 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the accompanying copy of the reply* of the Newcastle Trinity House to the memorial from the sea and river pilots of the ports of Shields and Newcastle.

I also inclose copy of a further letter which my Lords have addressed to the Trinity House with reference to that memorial.

I am to add that my Lords are unable to understand the apparent discrepancy between the statements of the pilots and those of the Trinity House of Newcastle, as to the tickets under which compensation is obtained from the Government for the abolition of differential dues. Their Lordships will be glad to know if the pilots have any further explanation to give on the subject of their allegation, that two pilotage tickets are sent in for every vessel taking or discharging cargoes at Shields, although no river pilot is employed.

I have, &c.

R. Ingham, Esq., M.P., House of Commons. T. H. FARRER.

No. 67.

Mr. Turnbull to Mr. T. Milner Gibson.

(No. 3,073.)
Sir, Chamber of Commerce, Tynemouth, 13th March 1862.

I am directed by the members of this Chamber to bring under your attention the fact that the Master and Brethren of the Newcastle Trinity House ceased in 1817 to

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* See above.

publish returns of the amount of money annually received by that Corporation from the various sources of revenue, which have been most extensive.

The plea for not publishing such returns was, according to Mackenzie's (the Northumbrian historian) testimony in 1826, "that the publication of the accounts would "be contrary to the oath of secresy taken by the members of the Trinity Board."

It would be of very great importance to the shipowners of North and South Shields if a separate pilotage board for arranging harbour regulations existed at the port of Shields. When the Trinity House was enfranchised in the 15th century, it was all very well then to have a Board eight miles away from the deep water part of the river, but now, in the changed state of circumstances on the Tyne, the place to regulate the pilotage laws should be where great movements of ships take place, that is within the limits of the port of Shields, and not to confine them to the management of the old Trinity House eight miles inland.

Should you require any information in reference to the pilot regulations, and the manner in which the shipowners suffer from the present system, I will be happy to furnish further particulars.

I have, &c.

Right Hon. T. Milner Gibson, M.P.,
President, Board of Trade.

RALPH TURNBULL,
Secretary.

No. 68.

MR. FARRER to the SECRETARY of the CHAMBER of COMMERCE, TYNEMOUTH.

(3,073.)

Marine Department, Board of Trade,
15th March 1862.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 13th inst., calling attention to the failure (since the year 1817) on the part of the Trinity House of Newcastle to publish returns of all monies received by that Corporation from their various sources of revenue.

In reply I am to acquaint you, for the information of the Tynemouth Chamber of Commerce, that by the 337th section of the Merchant Shipping Act, 1854, every pilotage authority is required to forward to the Board of Trade periodically a return of all receipts and expenditure in respect of pilots and pilotage within the port or district under their jurisdiction, and that these returns are laid before Parliament every year. The last pilotage returns are contained in the Parliamentary paper, No. 243, 1861.

I am to add that my Lords will be glad to receive any further information which the Chamber of Commerce may desire to offer, either on the subject alluded to in your letter or on any other matters connected with the pilotage of the River Tyne.

I am, &c.

The Secretary of the
Chamber of Commerce, Tynemouth.

T. H. FARRER.

No. 69.

MR. FARRER to the SECRETARY, TRINITY HOUSE, NEWCASTLE.

(No. 3,048.)

Marine Department, Board of Trade,
17th March 1862.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, with reference to this Board's letter of this date, No. 3,047 (see No. 63), the accompanying copy of a petition addressed to this Board by the pilots of the harbour of Blyth, complaining that the Newcastle Trinity House make no provision for aged pilots, their widows and orphans, out of the funds arising from their contributions of one shilling for every ship piloted, and likewise one penny for every shilling paid to the Trinity House by Her Majesty's Government by way of compensation for the abolition of differential rates on foreign ships.

Upon this point my Lords desire to observe that the 337th section of the Merchant Shipping Act, 1854, requires every pilotage authority to deliver periodically to the Board of Trade a return of "the receipt and expenditure of all money received by or "on behalf of such authority, or by or on behalf of any Sub-Commissioners appointed "by them in respect of pilots or pilotage," within the port or district under the jurisdiction of such authority, and that a return has been regularly made by the Newcastle Trinity House. But the memorialists allege that the returns so made do not contain the particulars of the sums to which they refer in their petition.

I am, &c.

The Secretary, Trinity House, Newcastle.

T. H. FARRER.

Enclosure in No. 69.

To the Right Honourable Her Majesty's Privy Council for Trade.

The humble petition of the pilots of the harbour of Blyth,

Showeth,

That your petitioners are licensed by the Trinity House of Newcastle upon Tyne, to pilot ships into and out of the harbour of Blyth, and that your Lordships' petitioners are subject to pay to the above Trinity House the sum of one shilling for every ship or vessel piloted by them, and likewise one penny for every shilling received from Her Majesty's Treasury by way of reciprocity pilotage, and that the Trinity House of Newcastle upon Tyne make no provisions out of the above sums for the support of the aged pilots, their widows, and orphan children.

We, therefore, your Lordships' petitioners, humbly pray your Lordships to take their present circumstances into your able and charitable consideration, and cause an inquiry to be made before the Trinity House of Newcastle upon Tyne, to know why the above sums are paid without having some relief from the said Trinity House to support the aged pilots, widows, and orphan children.

And should your Lordships' petitioners' request be granted, as in duty bound, we, your Lordships' petitioners, will ever pray.

Signed by John Burn, and 22 pilots.

No. 70.

Mr. Currie to Mr. Farrer, Marine Department, Board of Trade.

(No. 3,968.)

Sir, Trinity House, Newcastle-on-Tyne, 3rd April 1862.

I am directed to acknowledge the receipt of your letter of the 17th March, No. 3,048, with copy of petition of the pilots of the port of Blyth, and have to inform you that no application has ever been made to this Board for the information now sought for. This, if asked for, would have been readily granted, although it is probably already well known to the petitioners. The Board leave it to Her Majesty's Privy Council of Trade to consider whether the authority of this Board and the discipline of the pilots is likely to be maintained if the latter, without in the first place applying to the body under whose superintendence they are placed, are to obtain through another channel that information which could easily have been obtained by a simple inquiry from the Trinity House authorities with whom they are necessarily in daily communication.

The pilots do not pay 1*s.* for every ship piloted by them, but 6*d.* for every ship inwards and 6*d.* for every vessel outwards. The sum so paid form no part of the revenue of this House, but is paid over to the pilot master at Blyth, and is barely adequate to cover a moderate remuneration for his services, which are essential to the good government of the pilots themselves and in defraying the necessary expenses of his office.

The 1*d.* of every shilling deducted from reciprocity pilotage is equally without pecuniary advantage to this House. It is, with similar deduction at other ports, allowed as a commission to the collectors and pilotmasters for collecting tickets of each particular ship from the pilots, making out the necessary accounts and claims, copying and forwarding them to the Trinity House for examination previous to their transmission to London for the like purpose, and much other trouble of a similar description by the different officers.

The pilots of the port of Blyth have no funds in the hands of this Corporation applicable to the charitable purpose referred in the petition.

I remain, &c.

T. H. Farrer, Esq., JOHN CURRIE.
Marine Department, Board of Trade.

No. 71.

Messrs. Leitch and Kewney to the Secretary, Marine Department, Board of Trade.

(No. 3,331.)

Sir, Howard Street, North Shields, 19th March 1862.

We send by this post a memorial from the North Sea pilots of the Tyne praying the Board of Trade to introduce certain clauses into the proposed Bill for the alteration of the pilotage laws (of which notice has been given) in order to remove certain doubts as to some of the clauses in the Merchant Shipping Act as to pilots, and we shall feel greatly obliged by your laying the same before the Marine Department of the Board of Trade, and trust that it will meet with favourable consideration.

We are, &c.

The Secretary to the Board of Trade, LEITCH AND KEWNEY.
Marine Department.

Memorial referred to in No. 71.

The Memorial of the undersigned North Sea Pilots to the Lords of the Committee of Privy Council for Trade,

Respectfully sheweth,

That by the 361st section of the Merchant Shipping Act, 1854, it is enacted that an unqualified pilot assuming or continuing in the charge of any ship after a qualified pilot has offered to take charge of her, or using a licence which he is not entitled to use, for the purpose of making himself appear to be a qualified pilot, shall for each offence incur a penalty not exceeding fifty pounds.

That your memorialists are licensed by the Trinity House of Newcastle-upon-Tyne as North Sea pilots, and for the purpose of obtaining their licences they have undergone an examination and have paid fees thereon in addition to a fee of two pounds for each of such licences, and the safety of vessels navigating the same with the property conveyed therein is guaranteed by your memorialists, having been found upon their examination to be duly qualified for their office of North Sea pilots.

That the rights of your memorialists are seriously infringed upon by unqualified and unlicensed persons assuming and taking charge of vessels as North Sea pilots without having undergone any examination, or having obtained any licence for the purpose of piloting vessels in the North Sea or elsewhere. And your memorialists have been put to great trouble and expense in bringing such persons to justice.

That in a late prosecution the right of the Trinity House at Newcastle-upon-Tyne to grant the aforesaid licences to pilot vessels in the North Sea was disputed, and it is asserted that no such right exists although it has been exercised for a period far beyond the memory of any living person.

That it is exceedingly desirable for the safety of vessels navigating the North Sea and of the crews thereof and the property therein conveyed, that all doubts as to the validity of the licences granted by the Trinity House of Newcastle-on-Tyne for pilots for the North Sea should be put an end to, and the power of the said Trinity House to grant such licences should be confirmed.

That your memorialists are informed that a Bill is about to be brought into Parliament during the present session to amend the laws of pilotage, and your memorialists respectfully pray that your Lordships will cause a clause or clauses to be introduced into such Bill for the purpose of confirming the power of the Trinity House of Newcastle-on-Tyne to grant the aforesaid licences.

That by the 363rd section of the Merchant Shipping Act certain persons are made liable to pay pilotage dues for any ship for which the services of a qualified pilot are obtained, but doubts have arisen whether that section applies to any other pilotage than pilotage inwards to the port of arrival or discharge, and pilotage outwards as to the port from which the ship clears out, and it is very desirable that such doubts should be put an end to, and the liability of the persons named in the said section should be confirmed as to pilots who pilot vessels in the North Sea or other seas.

That your memorialists are constantly employed in piloting foreign vessels from the Tyne to the Downs and other parts of the North Sea, and are frequently referred for payment for their services by the captains of such vessels to their brokers or agents in Newcastle-upon-Tyne and North and South Shields, and instances have occurred where the brokers or agents have refused to admit their liability to pay for such services on the alleged ground that North Sea pilots are not included in the provisions of the said section of the said Act.

Your memorialists, therefore, respectfully pray that your Lordships will cause a clause or clauses to be introduced into the said proposed Bill for the purpose of putting an end to such doubts and to confirm the liability of the parties named in the said 363rd section to pay for the services of pilots licensed for and engaged in piloting vessels to the North Sea.

And your memorialists will ever pray, &c.

Signed by Isaac Wallis and 34 other pilots.

No. 72.

Mr. Farrer to Messrs. Leitch and Kewney.

(No. 3,331.)

Office of Committee of Privy Council for Trade,
Marine Department, Whitehall, 24th March 1862.

Gentlemen,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 19th instant, enclosing a memorial from the North Sea pilots of the Tyne, praying their Lordships to introduce certain clauses into the proposed Bill for the alteration of the pilotage laws.

I am, &c.
T. H. FARRER.

Messrs. Leitch and Kewney, Howard Street.

No. 73.

Mr. Farrer to the Secretary, Trinity House, Newcastle.

(No. 3,391.)

Marine Department, Board of Trade,
28th March 1862.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the accompanying copy of a memorial addressed to their Lordships by

the pilots of Sunderland, complaining of the injury to which they are subjected by the employment of unlicensed persons as pilots, and am to request you to lay the same before the Elder Brethren of the Trinity House, Newcastle, for any observations they may have to offer thereon.

I am, &c.

The Secretary, Trinity House, Newcastle. T. H. FARRER.

Enclosure in No. 73.

13, Moor Street, Sunderland, March 1862.

To Henry Fenwick, Esq., M.P., and William Schaw Lindsay, Esq., M.P.

Gentlemen,

THE most humble petition of your memorialists, the pilots of Sunderland, sheweth,

That there are four distinct grievances to which they call your attention as affecting their livelihood and injuring them most severely.

1st. That certain unlicensed men of the port are taken on board ships by the masters for the express purpose of piloting ships out or into this port; those unlicensed men give no word of command but by signal, such as walking to starboard, which by them means starboard your helm, walking to port, which by them means port your helm, and standing amidships, which means steady, thus they are able to pilot ships to sea, and the licensed pilots have no chance of bringing them before the justice of peace to get fined, for they cannot prove that he uttered a word while in charge of the ship, thus the law by those men is evaded.

The licensed pilots have been at some very considerable trouble in order to get one or two of these men fined before a magistrate, but in the cases of Paul Wawman,—Taylor, and others, although distinctly seen to pilot ships, and holding no licence, yet they were not punished, although brought before the proper authorities.

2nd. That certain licensed pilots monopolize the piloting of loaded ships to sea, while they never go to sea to seek for the light ships; thus those pilots who go in search of ships get the pilotage into the harbour, which is less than when going out loaded on account of the depth of water.

We would just, merely on this point, wish that some more equalization of piloting vessels in and out be made amongst us all, not that there should be any distinction between us.

3rd. That last year the sum of 632*l.* was paid by Government to the pilots of this port for compensation for one year, and that in 10 years, the Reciprocity Act coming into force, they will be deprived of at least their living; they would ask respectfully for you to take such steps as would obtain for them the whole amount of compensation for the 10 years, namely 6,320*l.* in one sum at once.

4th. That they hold their licences at the pleasure of the Trinity House, thus the Trinity House can call on any man, at any time, to deliver up his licence without giving him any reason for so doing by the following:—

"373. The Trinity House shall have power to revoke or suspend the licence of any pilot appointed by them in such manner and at such times as they think fit."

We would most respectfully ask you to consider these four points for us, and use your utmost endeavours as our representatives to lay them before the proper authorities to put a stop to, and alter such grievances as would ensure for us a fair livelihood, for which your most humble petitioners pray, and will, in duty bound, ever feel grateful.

We are, &c.

William Hunter,	George Gibbins, Senr.,	William Gills,
James Davison,	Richardson Gibbins,	John Henry,
William Davison, Senr.,	Matthew Wake,	James Johnson,
Joseph Henery,	George Gibbins, Junr.,	Thomas Hunter,
William Welch,	Fairly Downs,	Robert Noble
John Metcalf,	Edward Brown,	Thomas Welch,
John T. Dodds,	Robert H. Thompson,	John Dodds,
James Mackintosh,	Thomas Hopper,	Henderson Brown,
Frances Appleby,	William Henery,	Edward Brown,
William Willing,	Richardson Donkin,	John Smith,
Thomas Wrightson,	Thomas Patterson,	John Jackson,
Shadforth Brown,	Ralph Stafford,	John Alder,
John Lindsay,	John Hopper,	Henry Thurlbeck,
Michael Thurlbeck,	Matthew Donkin,	William Watson,
John Gills,	George Metcalf,	William Watson,
Robert Young,	Robert Lindsay,	William Watson,
William Brown,	Matthew Rush,	John Brown,
William Patterson,	William Wilson,	Michael Brass,
William Scott,	William Rush,	William Wake,
William Young,	Thomas Donkin,	Thomas Brown,
George Hopper,	Matthew Metcalf,	Thomas Carter,
Burton Brown,	James Morley,	William Alder,
James Atkinson,	Thomas Wilson,	John Wake,
Symon Dixon,	George Lindsay,	John Metcalf,
John Scott,	George Thompson,	Edward Scott,
William Nell,	William Hopper,	William Elliott,
Henry Brown,	Thomas Donkin,	Thomas Sutton,
John Sanderson,	John Pattison,	John Carter,

William Ellemoor,	James Elliott,	Robinson Carter,
Thomas Bambrough,	Matthew Metcalf,	William Alder,
Jacob Wake,	Henry Metcalf,	Charles Alder,
Thomas Donkin,	John C. Scott,	Charles Alder,
George Metcalf,	William Thurlbeck,	George Wilson,
William Brown,	William Pattison,	John Donkin,
Edward Henry,	Henry Jones,	Featherston Moor,
Edward Mordy,	Edward Brown,	Robert Alder,
Thomas Scott,	Thomas Rowell,	Atchinson Scott,
James Dixon,	Francis Welch,	Michael Hall,
William Jones,	John Welch,	William Hall, and
Richard Pallas,	John Shotton,	William Brown,

All licensed pilots of the port of Sunderland.

No. 74.

Mr. Farrer to W. S. Lindsay, Esq., M.P.

(No. 4,019.) Marine Department, Board of Trade,

Sir, 10th April 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to enclose for your information the accompanying copy of a letter which my Lords have received from the Trinity House, Newcastle, with reference to the memorial from the pilots at Sunderland, which was addressed to yourself and Mr. Fenwick.

I am, &c.

William S. Lindsay, Esq., M.P., T. H. FARRER.
8, Austin Friars, E.C.

Enclosure in No. 74.

Sir, Trinity House, Newcastle, 4th April 1862.

The letter which you addressed to this Board on the 28th ultimo, and the copy memorial from the pilots of Sunderland transmitted therein, addressed to Mr. Fenwick and Mr. Lindsay, the members of Parliament for that borough, have been under the consideration of this Board.

I am directed to inform you that no explanation on the subjects adverted in the memorial have ever been requested by this House, either by the memorialists or by the gentlemen to whom the memorial was addressed. The Board cannot but feel that such a communication ought in the first instance, at least, to have been made to them, and they are satisfied that the discipline of the pilots is likely to be seriously affected if they are to receive explanations from other quarters without previous application to the body under whose authority they are placed. They submit also that the position in which they stand towards the pilots can hardly be satisfactorily maintained if the intercourse between them is to be conducted by being passed through the Lords of the Committee of Privy Council for Trade, thence to the members of Parliament for the borough, and through them to the memorialists, who without difficulty could have received an immediate and explicit reply by submitting their application to the authority under which they are placed.

The first allegation on which an explanation is required is the statement that the pilots are interfered with by unlicensed persons, and the statement that in some particular instances which are specified the magistrates refused to convict. On this it is proper to observe that pilotage out of Sunderland is not compulsory, and that it is not enough, therefore, to prove that an unlicensed person was on board, but it must be established that he took command and acted as a pilot before he can be convicted and subjected to a penalty. It is admitted on the face of the memorial that in some cases the magistrates have convicted, and this Board can only suppose that in the other cases referred to the magistrates have not been satisfied that the evidence justified a conviction. It is difficult in practice to obtain this evidence, because the unlicensed person is generally careful not to commit a pilotage act until out of the observations of the pilots, and, of course, the master and crew are not to be obtained as witnesses. The Lords of the Privy Council for Trade must perceive that it is not for this Board to comment on the proceedings of magistrates who, they do not permit themselves to doubt, have always acted conscientiously.

On the second head of the memorial I am to state that it is open to shipowners to select their own pilots, and this House has no desire or wish to interfere with their choice, the duty of the Board being limited to the securing an efficient body from whom to choose.

The third paragraph is one of extraordinary character. The compensation to be made by Her Majesty's Government is not to be paid down at once, but is spread over a period of ten years, neither is it to be paid to the pilots of 1861 exclusively, but is devisable amongst those who do the work in the present and future years. The Board, it is hardly necessary to say, have no funds with which to comply with the request of the memorialists, and if they had possessed such funds it would in their judgment have been a gross abuse of their duty so to apply them, which would probably have given rise to a demand for an increased rate of pilotage for the future.

On the fourth allegation I am to remark that the pilots of Sunderland are precisely in the same situation as other pilots throughout the kingdom. The power to which they refer in the memorial

s essential to the maintenance of the discipline and efficiency of the force, and, therefore, properly vested in every Trinity Board by the Legislature. The Board observe that the memorialists do not venture to assert that this power has ever been abused by this House.

I have, &c.

'Signed) JOHN CURRIE, Secretary.

No. 75.

MR. FARRER to the SECRETARY, TRINITY HOUSE, NEWCASTLE.

(No. 6,266.) Marine Department, Board of Trade,

SIR, 7th June 1862.

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you the accompanying copy of a petition addressed to the Board by the pilots of the port of Shields, referring to an order issued by the Master and Brethren of the Trinity House of Newcastle, to the effect "that no foreign pilotage will be paid "without the production of the foreign pilotage ticket," and complaining that as foreign masters sometimes refuse to give tickets and that they may thus be deprived of their just rights.

The matter is not one in which my Lords have any right to interfere, but they think it right to say that it appears to them that if the facts are as stated it would be a hardship strictly to enforce the regulation in question.

My Lords take this opportunity of again referring to former correspondence which has passed on the subject of foreign pilotage tickets.

The system is admitted to be troublesome, but the Trinity House seem to think that it could not be dispensed with without injustice to individuals, as they consider that it would not be fair to divide the compensation money equally among the pilots who are entitled to share it, and thus place the idle and the industrious pilot on the same footing.

My Lords entirely concur in the opinion that in paying the pilot dues regard should be had to the services performed, and they desire me to suggest for the consideration of the Master and Brethren whether the difficulty referred to above might not be got over by apportioning the compensation money among the pilots generally by the payment of a per-centage on the gross earnings of each, irrespective of the class of vessels piloted.

To give a double pilotage to those pilots who happen to pilot foreign vessels would seem *primâ facie* to be a premium upon neglecting British and seeking for foreign ships rather than a fair reward for greater industry.

Before replying to the Shields pilots my Lords will be glad to receive any observations which the Master and Brethren may have to offer on the above suggestions which would have the effect of abolishing the differential payment for foreign pilotage, the justice or the necessity of which is not apparent, and would probably satisfy the pilots who are dissatisfied with the existing system of payment.

I have, &c.

The Secretary, Trinity House, Newcastle. T. H. FARRER.

Enclosure in No. 75.

To the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE, LONDON.

SIR,

IN consequence of the bad feeling now existing between the Trinity House and the pilots of the Tyne I am instructed by the pilots to write to your Honourable Board for advice upon the following instructions received by the pilots from the Trinity House, which are as follows:—

"That no foreign pilotage will be paid without the production of the foreign pilotage ticket."

We beg leave to inform your Lordships that many of the foreign captains will not make a ticket out for the pilots; in consideration of this the pilots are desirous of having your Lordships' opinion if they, the Trinity House, are justified in withholding the foreign pilotage when the pilots are unable to get such tickets filled up.

The pilots are desirous to know likewise if they would be justified in using legal advice for the recovery of the same, as it is the general wish of the pilots to have whatever amount of money the Government thinks proper to send to be received by the pilots, and equally divided amongst both old and young pilots, clear of all drawbacks.

The pilots have received no foreign pilotage for the last quarter for last year, and the pilots are desirous to know if the last quarter has been received by the Trinity House or not, and should your Lordships favour your servants with the above information we your Lordships obedient servants will feel truly thankful.

In behalf of the pilots of the port of Shields we beg leave to subscribe our names.

ROBERT BLAIR.

JOHN HUTCHINSON, sen.

No. 76.

Mr. Currie to the Secretary, Marine Department, Board of Trade.

(No. 6,713.)

Sir, Trinity House, Newcastle, 11th June 1862.

I am directed to acknowledge the receipt of your letter of the 7th inst., accompanying copy of a letter from Robert Blair and John Hutchinson, sen., on behalf of the pilots of the port of Shields, and I am to state that your communications have had careful consideration.

On reference to the 41st George 3. c. 86. regulating the pilotage of the port of the Tyne it will be perceived that a fixed rate of pilotage is granted on British and another and different rate on foreign vessels, and that separate and different rates for sea and river pilotage, varying as to British and foreign vessels, are likewise granted without any authority to the Trinity House to alter, vary, or amalgamate those rates or in any way to change their distribution.

It is therefore the opinion of the Board, and they are advised that without Parliamentary authority, which they do not possess, they must apply the compensation, payable by the Government on the abolition of reciprocity dues, in the manner provided by the Act previously adverted to, namely, amongst the pilots who perform the service in respect of which it is paid; they apprehend that they have no power to throw the whole into one mass, sea and river foreign pilotage compensation money, and divide the amount in proportion to pilotage earned on British vessels, with which it has no connexion.

It will be perceived therefore that the Board are precluded from the adoption of the suggestion of the Lords of the Committee of the Privy Council for Trade, as it is of course incumbent upon them to distribute the money in accordance with the provisions of the Act before referred to, until it be altered or repealed.

The system of tickets is only enforced in order to show beyond dispute the sum to which each pilot is individually entitled, and it is a satisfaction to the Board to know that although considerable trouble is imposed on the officers of the House the trouble to the pilots themselves is inconsiderable, consisting merely of obtaining from the master of a foreign vessel a pilotage certificate on a previously prepared printed form, furnished by the Trinity House and which is given as a matter of course before the pilot leaves the vessel. As a proof that this imposes no difficuty worth adverting to, I may mention that the tickets required for the last quarter have been regularly procured and delivered by the pilots piloting vessels up and down the river Tyne.

This Board have no desire to continue a system of tickets if any other correct mode of securing an accurate distribution can be pointed out, but it is obvious from the statement of the memorialists that this is not the cause of dissatisfaction; the object sought being that the money should be "equally divided amongst both old and young pilots," and which for the reasons before given is impracticable.

The Board have no reason to think that foreign masters sometimes refuse to give tickets, and no complaint of such refusal has ever been made to them or it should at once have been investigated, and if well founded the pilot protected from loss.

It is stated in the letter of Mr. Blair and Mr. Hutchinson that the pilots have received no foreign pilotage for the quarter ending December 1861, which makes it proper that I should inform you that the amount due was only received on the 5th inst., and that the distribution commenced on the following day.

I am, &c.

T. H. Farrer, Esq., Marine Department, Board of Trade, London. JOHN CURRIE. Secretary.

No. 77.

Mr. Farrer to the Secretary, Trinity House, Newcastle.

(No. 6,713.) Marine Department, Board of Trade,

Sir, 18th June 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 11th instant, explaining the grounds upon which the Master and Brethren of the Trinity House, Newcastle, are advised that they have no power to alter, vary, or amalgamate, or in any way to change the distribution of the remuneration paid to pilots in respect of British and foreign pilotage respectively.

My Lords desire me to call the attention of the Corporation to the 333rd section of the Merchant Shipping Act, 1854, the 5th paragraph of which empowers a pilotage authority, by consent of Her Majesty in Council, to alter the mode of remunerating their pilots in such manner as such authority may think fit, with the proviso therein mentioned.

My Lords apprehend that under the above clause the Newcastle Trinity House, with the sanction of Her Majesty in Council, are competent to alter and amend the rates and prices, the remuneration to be demanded and received for the time being by the pilots licensed by them, and should the Master and Brethren think proper to propose regulations that would simplify the present mode of distributing the compensation for differential pilotage in the manner suggested by this Board, my Lords will assist the Corporation in obtaining for such regulation the approval of Her Majesty in Council.

I have, &c.

To the Secretary, Trinity House, Newcastle. T. H. FARRER.

No. 78.

(No. 12,488.) Lord Wodehouse to James Booth, Esq.

Sir, Foreign Office, 20th November 1860.

I am directed by Lord John Russell to transmit to you, to be laid before the Lords of the Committee of Privy Council for Trade, a copy of a note from Monsieur Mazel, who has been acting as Chargé d'Affairs for the Netherlands during the absence of Bam Bentinck, setting forth the circumstances under which he requests that the amount of certain charges levied on the Netherlands vessel "Martha Alida" may be refunded; and I am to request that, in laying these papers before the Board of Trade, you will move their Lordships to cause an inquiry to be made into the circumstances stated by Monsieur Mazel, and to favour Lord John Russell with their opinion as to the answer which should be returned to this application.

I am, &c.

James Booth, Esq. WODEHOUSE.

Enclosure in No. 78.

My Lord, Londres, le 12 Novembre 1860.

Je viens d'être chargé par mon Gouvernement de porter à la connaissance de V. S. les faits suivants concernant les droits de pilotage et autres frais, que l'Administration du pilotage à Yarmouth a cru devoir imposer au Capitaine Karst du navire Néerlandais "Martha Alida."

Sur son voyage de Queenstown à Hull le dit capitaine avait continuellement à lutter contre une haute mer et des vents contraires, et arrivé à la hauteur de Lowestoft il était obligé de jeter l'ancre à cause d'une tempête qui venait de le soulever. Le temps étant devenu plus calme, il continua sa course vers Hull, en passant entre les bancs de Yarmouth et le littoral, lorsqu'il fut abordé par un bâteau d'où on lui adressa la demande si il avait besoin d'un pilote, demande à laquelle le capitaine répondit négativement. Arrivé à Hull, on réclama de lui 1*l.* 10*s.* pour droit de pilotage à Yarmouth. Le Capitaine Karst déclara être prêt à payer cette somme, du moment qu'on saurait lui prouver qu'il la devait réellement, mais cette preuve à donner restait en défaut. Quelques jours plus tard arrive à Hull un employé de la police de Yarmouth pour arrêter le capitaine et le conduire devant l'autorité de cette dernière ville, à moins qu'il ne voulut payer immédiatement le double du montant des droits de pilotage, ainsi que certains frais, s'élevant ensemble à la forte somme de 14*l.* détaillée dans la note que j'ai l'honneur de joindre à la présente.

Le capitaine, qui était occupé à décharger son navire, ne pouvait soumettre à l'acte rigoureux de briser de corps, s'il ne voulait pas gravement compromettre les intérêts de ses patrons, et après avoir consulté des personnes compétentes à Hull, il se décida à payer, sous protestation, la somme qu'on exigeait de lui.

L'acte dont le Capitaine Karst a été l'objet de la part des autorités Anglaises à Yarmouth semble, my Lord, pouvoir faire l'objet de plus d'une contestation.

Il est vrai que d'après l'Art. 353 du "Merchant Shipping Act" de 1854, tout capitaine de navire non exempté, naviguant dans les districts où l'usage de pilotes est prescrit par la loi, est obligé d'en prendre un, sous peine de payer le double du montant de ces droits, et en admettant donc pour un moment que le Capitaine Karst était obligé de se servir d'un pilote (ce qui ne semble pas du tout prouvé dans le cas dont il s'agit ici), et que par conséquent ses actes tombaient sous l'application de la pénalité prescrite par le susdit Art. 353 on en a agi cependant d'une manière irrégulière et contrairement à ce que prescrit l'Art. 363 du "Merchant Shipping Act," qui dit:—

"The following persons shall be liable to pay pilotage dues for any ships for which the services of a qualified pilot are obtained, in default of payment such pilotage dues may be recovered in the same manner as penalties of the like amount may be recovered by virtue of this Act; but such recovery shall not take place until a previous demand thereof has been made in writing, and the dues so demanded have remained unpaid for seven days after the time of such demand being made."

Or il a été prouvé qu'aucune demande par écrit n'a été adressée au Capitaine Karst.

En outre l'Art. 379 du "Merchant Shipping Act" porte,—

"The following ships, when not carrying passengers, shall be exempted from compulsory pilotage in the London and in the Trinity House outport districts.

(6.) "Ships passing through the limits of any pilotage on their voyages between two places both situate out of such limits, and not being bound to any place within such limits or anchoring therein."

Ce sont encore ces stipulations qui semblent pouvoir être invoquées, dans toute leur valeur en faveur du capitaine, car s'il a jeté l'ancre à la hauteur de Lowestoft c'était à cause du mauvail

temps, donc un cas tout à fait de force majeure, et non pas dans des conditions qui pourraient faire supposer qu'il eût la moindre intention de communiquer avec la côte.

Il est donc permis d'admettre, my Lord, qu'on a agi envers le Capitaine Karst avec une rigueur un peu précipitée, car si on avait bien voulu se rendre compte des circonstances qui l'ont fait stationner devant Lowestoft, on n'aurait pas, tout en observant les prescriptions du "Merchant Shipping Act," exigé de lui des droits de pilotage, et, dans tous les cas, aurait on surtout après avoir negligé de lui adresser une demande par écrit, évité de surcharger le montant de ces droits de frais extraordinaires, s'élevant à la somme peu raisonnable de 11*l.*

C'est en considération de ce qui précède que mon Gouvernement en a ordonné de m'adresser à V.E. afin qu'elle veuille bien interposer ses bons offices pour que la somme de 14*l.* dont on a exigé la paiement du Capitaine Karst, puisse être restituée à qui de droit.

Mon Gouvernement s'adresse avec d'autant plus de confiance en cette circonstance au Gouvernement de Sa M.B., qu'il a la conviction qu'après avoir examiné l'affaire avec le jugement éclairé et l'impartialité qui les distinguent, les autorités anglaises, ne sauraient que reconnaître l'équité de la réclamation qui fait l'objet de la présente.

Je saisis, &c.
A. Mazel.

Lord John Russell.

Sub-Enclosure in No. 78.

Bill of costs for apprehending the captain of the schooner "Martha Alida."

	£	s.	d.
Pilotage and witnesses - - - - -	3	7	0
Attorney - - - - - - -	1	1	0
Magistrates clerk's fees - - - - -	0	5	6
Telegrams - - - - - - -	0	9	0
Railway fares to Hull and back and incidental expenses -	4	17	6
Officer's charges - - - - - -	4	0	0
	14	0	0

No. 79.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 13,686.)

Sir, Trinity House, London, E.C., 19th December 1860.

Having laid before the Elder Brethren your letter of the 23d ult., transmitting by direction of the Lords of the Committee of Privy Council for Trade, copy of a complaint from the Dutch Minister concerning steps taken by a Yarmouth pilot, for enforcing the penalty to which the master of the Dutch ship "Martha Alida" had subjected himself, and signifying the request of their Lordships to be favoured with any observations the Elder Brethren may have to offer thereon; I am directed to transmit for their Lordships' information copy of the report, with the declaration of the pilot, in relation to these proceedings, which have been received from the Sub-Commissioners of Pilotage at Yarmouth, who had been instructed to make inquiry thereon.

I am, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Enclosure in No. 79.

Copy of letter from Mr. Wm. Davie, Sub-Commissioner of Pilotage at Yarmouth, relative to the Case of the "Martha Alida."

Sir, Sub-Commissioners of Pilotage Office, Yarmouth, Dec. 14, 1860.

Your letter of the 28th ult. with its enclosure came duly to hand, and the case of the "Martha Alida" having been fully investigated by the Sub-Commissioners of Pilotage, it appears that the master of that vessel has brought the whole of the proceedings upon himself by his obstinacy in refusing to pay after repeated personal applications had been made to him by parties at Hull on behalf of the pilot; and it was only when the vessel was likely to get away that the pilot applied to the magistrates here for a warrant for the recovery of penalties, as shown by the pilot's declaration enclosed.

I have, &c.
William Davie,
for Sub-Commissioners of Pilotage.

P. H. Berthon, Esq.,
Trinity House, London.

Sub-Enclosure in No. 79.

Copy of the Pilot's declaration in the case of the "Martha Alida."

I, Benjamin Bensley, of Gorleston, in Suffolk, a duly licensed pilot, hereby declare that I offered my services to the captain of the "Martha Alida" on the sixth day of October last, in Corton Roads; and at the time he weighed anchor from Corton Roads, he absolutely refused to take my services although I explained the law to him and showed him my licence.

I caused an application to be made to the captain at Hull for the amount which would have been due for pilotage had I been allowed to act, but without effect; and it was only upon finding that there was great probability of the cargo being speedily discharged and of the vessel sailing, that I applied to the Yarmouth Justices, who upon hearing the facts, granted a warrant for the captain's apprehension.

I know nothing of the officer's proceedings, but I am informed by him it was at the captain's urgent request that the case was arranged at Hull, in order that the captain might not be put to further expense and inconvenience.

The proceedings adopted by me were not for the recovery of pilotage, but for the recovery of a penalty consequent upon the captain's refusal to take a pilot when bound by law to do so. No notice was therefore necessary, although, as I have before stated, an application for payment of the amount I should have earned had I been employed, was made and refused before any proceedings were taken by me.

10th Dec. 1860. BENJAMIN BENSLEY.

No. 80.

MR. FARRER to the SECRETARY, TRINITY HOUSE.

(No. 13,686.) Marine Department, Board of Trade,
22nd December 1860.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 19th instant, on the subject of the complaint in the case of the "Martha Alida," and to state that it appears to my Lords desirable in a case which is undoubtedly, even if sanctioned by law, one of hardship, to have a more specific account of the steps taken at Hull, giving the nature of the applications made to the captain, the dates of such applications, and the particulars of the final settlement.

These points are given very cursorily and imperfectly in the short report of the Sub-Commissioners, and the document they enclose.

I am, &c.

The Secretary, Trinity House T. H. FARRER.

No. 81.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD OF TRADE.

(No. 722.)

SIR, Trinity House, London, 16th January 1861.

HAVING laid before the Elder Brethren your letter of the 22nd ulto., stating that it appears to the Lords of the Committee of Privy Council for Trade desirable to have a more specific account of the steps taken by the Yarmouth pilot, whose services were refused by the master of the "Martha Alida," in the first place to effect a compromise and, failing therein, to enforce the penalty, I am now directed to transmit for their Lordships' information, a further report from the Sub-Commissioners of Pilotage at Yarmouth, together with the statement of the pilot, &c., in relation to the preceedings taken in this case.

I have, &c.

The Secretary, Marine Department, P. H. BERTHON.
Board of Trade.

Enclosure in No. 81.

The case of the "Martha Alida."

COPY of the STATEMENT of BENJAMIN BENSLEY, Yarmouth Pilot.

Benjamin Bensley, harbour and gattway pilot, states that on the 6th October last, he saw the schooner "Martha Alida" at anchor in Yarmouth roads, (wind just coming from the southward, and vessels getting under weigh to proceed to the northward,) which he boarded and inquired of the master where he was from, and where bound to. The master replied from Smyrna, bound to Hull. Bensley then told him he was subject to pilotage out of the roads, but the master refused his services, and said he would not have a pilot, when Bensley said "If you do not take me, you will have to pay more money

than the pilotage, and that he should write to Hull after him." The master made signs for his authority, when Bensley showed him his licence and the Act of Parliament, and the master asked him his name, which Bensley gave him, and requested him to take the number of his boat, which was lying alongside with the pilot flag displayed. Bensley remained on board until the vessel was under weigh and sails set, when the master still refusing his services he left him. Bensley further states that there were several vessels close by, all of which took pilots, and of which Bensley and the other pilots in the boat might have got charge if they had not been detained in persuading the master to take Bensley, which vessels were subsequently boarded by other pilots.

Upon seeing her arrival at Hull, Bensley got his agent to write for a settlement by paying the single pilotage, or otherwise he would be compelled to proceed for penalties. A few days after, his agent sent for him and informed him that the master still refused payment, and wrote again, but before receiving an answer, a telegram was forwarded from Hull stating that unless steps were speedily taken the vessel would get away as her cargo was nearly out. Finding there was no other means of getting his money, by the advice of his agent, Bensley applied to the magistrates for a summons, which was granted, and an officer despatched to Hull with it.

The above statement was taken before the Sub-Commissioners this 31st day of December, 1860.

Wm. Davie,
Senior Sub-Commissioner.

The case of the "Martha Alida."

Copy of Letter from Mr. W. Davie, of Yarmouth, one of the Sub-Commissioners of Pilotage.

Sir, Sub-Commissioners of Pilotage Office, Yarmouth, 14th January 1861.

At a meeting held December 31, 1860, your letter of the 24th, together with one enclosed from the Committee of the Board of Trade, bearing date the 22nd, were laid before the Sub-Commissioners of pilotage for this port, when Benjamin Bensley was again examined relative to the case of the "Martha Alida," referred to in those and previous letters, and enclosed I beg to transmit to the Honourable Board his statement respecting it. I also enclose the result of information received from Mr. Steel, the agent employed by the pilot to obtain a settlement of his claim.

It appears that the pilot having offered his services agreeably to the 346th and 351st clauses of the Merchant Shipping Act, and which services were refused by the master, had no legal claim on the vessel for pilotage, not having performed pilot services, and he had therefore no legal remedy but by proceeding against the master for refusing such services as provided for by the 353rd sect. of that Act.

In order, however, to avoid the expense attending this process, application was made to the master at Hull for the payment of the amount which would have been due had the pilot been employed, but which the master refused to pay, and it was only when informed by the agent's correspondent at Hull that the vessel would soon be ready for sail, that the pilot, by advice of his solicitor, applied for, and the magistrates here granted, a warrant to apprehend the master, who upon the officer's arrival at Hull, paid the amount of double pilotage demanded; but respecting the charges made by the officer, the pilot knows nothing; and he has shown to the Sub-Commissioners that he only received the amount of double pilotage less the expenses, and regrets if any unjust or unnecessary charges have been made.

As required by the letter of your Honourable Board, the Sub-Commissioners beg to remark that it appears to them that the master of the vessel was bound to take the pilot who offered his services, as his vessel had anchored in the roads, thereby forfeiting his claim of exemption from compulsory pilotage, contained in clause 379, No. 5, and the circumstances under which the vessel anchored there, (and on which the Minister who addressed the Government of this country on this subject appears to lay great stress,) does not, in their judgment, in any way affect the case.

That the master had ample time after his arrival at Hull to satisfy himself of his liability to employ a pilot, and after application had been made to him for settlement, he could easily have learned that he had rendered himself liable to the penalty by refusing.

That as far as the pilot is concerned, the Sub-Commissioners conceive that the master has no just ground of complaint; but whether the charges made by the officer sent with the magistrates' warrant are expensive, the Sub-Commissioners are unable to give any opinion, but would respectfully refer their Lordships to the magistrates of this borough on this subject. The Sub-Commissioners would further remark that Benjamin Bensley is a steady, respectable pilot, and that the pilots generally have frequent cause of complaint that they are defrauded of their pilotage, either by refusals to employ them, as in the present case, or by mis-statements respecting the ports from whence they come or where they are bound to, so that it is often too late to take the necessary steps to recover, especially in the case of foreign vessels, the agents in such cases not being liable; and on this account, with every disposition to protect vessels, especially foreigners, against any unjust charges made by the pilots under their superintendence, the Sub-Commissioners cannot but observe that the pilots in this district have strong claims to any assistance which can be afforded them in the recovery of those rights of which such frequent attempts are made to defraud them in consequence of the peculiar position of the district and the facilities thereby offered to do so.

I am, &c.
Wm. Davie.

Copy of Memorandum of the Agent employed by B. Bensley, Pilot of Yarmouth, to recover pilotage in the case of the "Martha Alida."

"On or about Oct. 13th wrote to Mr. James Graham, No. 2, Graham's Row, Drypool, Hull, to go on board the "Martha Alida" and make application to the master for the sum of 1*l.* 10*s.*, being for 12 feet draft water at 2*s.* 6*d.* per foot, he having refused to take a pilot on the 6th, in Yarmouth roads, and also requested Mr. Graham to ascertain who were the agents of the ship, and apply to them for payment if the captain should refuse, and which he did, when both the master and agent refused payment."

No. 82.

Mr. Farrer to the Secretary, Trinity House.

(No. 722.) Marine Department, Board of Trade,
Sir, 24th January 1861.

I am directed by the Lords of the Committee of Privy Council for Trade to refer you to the correspondence that has taken place between the Trinity House and this Board relative to the case of the Dutch vessel "Martha Alida," and I am to state to you for the information of the Elder Brethren that whilst the pilot and his advisers seem to have been legally justified under the present state of the pilotage law in the steps they took, the case is in the opinion of this Board one of extreme hardship, and one which calls for an alteration of the law.

My Lords feel no doubt that the Elder Brethren will agree with them, and will see the propriety of exercising, for the purpose of preventing similar cases of hardship, the power of exempting vessels from compulsory pilotage with which they are invested by the Merchant Shipping Act.

I have, &c.
The Secretary, Trinity House. T. H. FARRER.

No. 83.

Mr. Booth to the Under Secretary of State, Foreign Office.

(No. 722.) Marine Department, Board of Trade,
Sir, 24th January 1861.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 20th November last, transmitting copy of a note from the Chargé d'Affaires for the Netherlands, representing the hardships of the circumstances under which the masters of the Netherland vessel "Martha Alida" has been compelled to pay the sum of 14*l.* for pilotage and other expenses, and requesting that inquiries may be made in order that any demands improperly made may be refunded.

I am to state to you, for the information of Lord J. Russell, that my Lords have been in communication with the Trinity House. I transmit for his Lordship's information, copies of the correspondence that has passed upon the subject.

I am to point out that the statements of the Sub-Commissioners for Pilotage, and those forwarded with Monsieur Mazel's note, differ in some respects. My Lords, however, consider that, if the Sub-Commissioners' account is correct, the pilot was legally justified in taking the course he did for obtaining payment of his pilotage.

The sum actually demanded by the pilot, and actually received by him, was 1*l.* 12*s.* 6*d.*, the remainder of the sum of 14*l.* which the unfortunate master of the "Martha Alida" had to pay, was expended in costs.

The case appears to my Lords to be one of great hardship.

It, however, applies equally to Foreign and British vessels, and the attention of this Board and of the Trinity House has been directed to the subject.

My Lords would suggest that Lord J. Russell should inform the Netherlands Minister to the above effect, and add that the Trinity House as well as Her Majesty's Government have for some time had under their consideration the expediency of adopting measures for so amending the rules relating to pilotage as to avoid the recurrence of the grievances of which the Netherlands representative has complained.

As the law now stands there are no means of recovering any portion of the costs in the case.

I have, &c.
The Under Secretary of State, Foreign Office. JAMES BOOTH.

No. 84.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 1,427.)
Sir, Trinity House, London, E.C., 30th January 1861.

I am directed by the Elder Brethren to acknowledge the receipt of your letter of 24th instant, in further reference to the case of the Dutch vessel "Martha Alida," and stating that the Lords of the Committee of Privy Council for Trade feel no doubt that

this Board will agree with them in opinion as to the extreme hardship thereof, and will see the propriety of exercising, for the purpose of preventing similar cases, the powers of exempting vessels from compulsory pilotage with which they are invested by the Merchant Shipping Act.

In reply, I am to state for their Lordships' information, that the attention of the Elder Brethren has been for some time past directed to the means by which relief might be given to vessels navigating under circumstances similar to those of the "Martha Alida," and that previously to the receipt of your communication, measures had been taken for ascertaining in what manner the same might be legally carried into effect consistently with the provisions of the Merchant Shipping Act.

The hardship complained of being peculiar to the navigation of Yarmouth roads, it was at first contemplated to submit for the consent of Her Majesty in Council a byelaw extending the exemption from compulsory pilotage to vessels passing through those roads when anchoring therein; but it being considered inexpedient to make an alteration in the law which should apply to an individual port, or to make such alteration general, the Elder Brethren have been advised that by the establishment of a nominal rate of pilotage applicable to vessels anchoring in Yarmouth Roads and not requiring the services of a pilot, nor being otherwise liable to compulsory pilotage, the object in view may be indirectly attained, and they have therefore determined to establish such rate accordingly.

I have, &c.

The Secretary, Marine Department,
Board of Trade.

P. H. BERTHON.

No. 85.

Mr. David Sumners and Mr. John Pope to the Right Hon. Board of Trade.

(No. 12,113.)

My Lords, Falmouth, 7th November 1860.

We, the undersigned certificate masters, for many years past have been engaged as Channel pilots from this port to the North Sea, and to different ports in the three Channels, beg most respectfully to lay before your Honourable Board the great hardship we have to suffer at Shields and Hull on taking a vessel from this port to either of the above two ports, by our being superseded by the licensed Channel pilots, and not allowed to go further in the vessels. Now, we most respectfully beg to ask your Honourable Board whether we could not be examined and have a licence granted us if found competent.

We remain, &c.
DAVID SUMNERS,
JOHN POPE,
Certificated Masters.

To the Right Hon. Board of Trade.

No. 86.

Mr. Farrer to Mr. David Sumner, Master Mariner, Falmouth.

(No. 12,113.)

Marine Department, Board of Trade,
14th November 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 7th inst., signed by yourself and Mr. John Pope, complaining of the hardship you experience when piloting vessels from Falmouth to Hull or Shields, by being superseded at those ports by the licensed Channel pilots.

My Lords presume that you are simply Channel pilots. If so you are not allowed to act as pilots in other pilotage districts for which local pilots are appointed. If, however, you are masters licensed to pilot your own vessels in the Channel you can pass your examination at Hull for a certificate to act as pilot in that district also. The Tyne pilotage is not compulsory on British vessels, and if you are navigating your own vessels you, therefore, need no pilot's certificate for that district.

I am, &c.

Mr. David Sumners, Master Mariner, Falmouth.

T. H. FARRER.

No. 87.

Mr. David Sumners and Mr. John Pope to the Secretary, Marine Department, Board of Trade.

(No. 12,866.)

Sir, Falmouth, 30th November 1860.

With reference to a joint letter by us, the undersigned, of the 7th inst., and their Lordships' reply of the 14th inst., we beg to explain that our view is that we wish to obtain respectfully a licence from the Board for piloting vessels in the three Channels and the North Sea; it is not our view to interfere with local districts pilots, and to obtain such licence we offer ourselves for previous examination.

We find from experience that many ship-masters, both British and foreign, calling at this port require the services of qualified pilots, which their Lordships' licence, such as we seek, would be a guarantee.

We are, &c.
DAVID SUMNERS,
JOHN POPE,
Master Mariners.

The Secretary, Marine Department,
Board of Trade, London.

No. 88.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 13,408.)

Sir, Trinity House, London, E.C., 12th Dec. 1860.

Having laid before the Elder Brethren your letter of the 4th inst., transmitting by direction of the Lords of the Commitee of Privy Council for Trade copy of correspondence between their Lordships and Messrs. Sumners and Pope of Falmouth, on the subject of pilotage, and signifying the request of their Lordships to be favoured with any observations the Elder Brethren may have to offer with reference to the object of the applicants; I am directed to acquaint you that the Elder Brethren, having given consideration to this subject, are of opinion that it would be desirable, if practicable, that every person proceeding in pilotage charge of a vessel within the channels of the United Kingdom, although out of pilotage districts, should prove his competency by examination to act in that capacity, but that the Elder Brethren are not aware of power being delegated to any authority for such purpose.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

No. 89.

Mr. Farrer to Mr. David Sumners, Master Mariner, Falmouth.

(No. 13,408.) Marine Department, Board of Trade,
31st December 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to inform you that they have had under consideration the letter of the 30th ult., from yourself and Mr. John Pope, stating that you wish to obtain pilotage licences for the Channels and North Sea, beyond the limits of local pilotage districts.

My Lords have been in communication with the Trinity House of London on the subject, and neither their Lordships nor the Elder Brethren are aware of any powers which would enable any authority to grant licences such as those you ask for.

I am, &c.
T. H. FARRER.

Mr. David Sumners, Master Mariner, Falmouth.

No. 90.

Mr. Thomas Spencer to the Secretary to the Board of Trade.

(No. 1,030.) 3, Keppel Street, South Shields,
22nd January 1861.

Sir,

I beg most respectfully to say, that being a licensed pilot for the North Sea, and being scarcely able to secure employment in consequence of so many persons without licence taking vessels from this port, and taking them for so much below the regular

charge, that when any of our regular pilots succeed in obtaining a vessel to take either to Deal or to the Isle of Wight, they are obliged to go for prices which in some cases do little more than pay their expenses home again.

Sir, the object of my taking this liberty is to ask if you can in any way assist us by your advice, as to how we could better our condition, and what steps we ought to take so that we might be able to prevent unlicensed men from taking our employment from us with so much impunity, as I regret to say they do in this (Shields) port?

Hoping that you will excuse the liberty I have taken in writing to you, in what to myself and brother pilots is a most important subject, and shall feel exceeding grateful if you can in any way assist us in the matter.

I am, &c.
THOMAS SPENCER.

J. Farrer, Esq., Secretary to the
Board of Trade.

No. 91.

Mr. Farrer to Mr. Thomas Spencer, Pilot.

(No. 1,030.)

Marine Department, Board of Trade,
26th January 1861.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 22nd instant, complaining that licensed pilots in the port of Shields are injured by the acts of unlicensed persons who are constantly in the habit of taking charge of ships in that district, and requesting the advice and assistance of the Board for your guidance in obtaining redress.

I am to acquaint you in reply that the Merchant Shipping Act, 1854, amply protects the right of duly qualified pilots, and I am to refer you to sections 358, 360, and 361 of that Act, which enable a licensed or qualified pilot to supersede an unqualified pilot, and impose a penalty on any unqualified pilot who pretends to be qualified, or who refuses to give way to a qualified pilot.

I have, &c.
T. H. FARRER.

Mr. Thomas Spencer, Pilot,
3, Keppel Street, South Shields.

No. 92.

Mr. P. H. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 1,790.)

Trinity House, London, E.C., 6th February 1861.

Sir,

It being proposed by the Elder Brethren to enact a byelaw, copy of which is inclosed, exempting from compulsory pilotage all ships when not carrying passengers, navigating in ballast from any port or place in the United Kingdom to any other port or place in the United Kingdom, within the pilotage jurisdiction of the Trinity House, I am directed to signify the request of the Elder Brethren to be acquainted, pursuant to the 334th section of the Merchant Shipping Act, 1854, in what manner the Lords of the Committee of Privy Council for Trade desire that the same should be published, before it is submitted to Her Majesty in Council for Her assent.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Enclosure in No. 92.

Draft Copy of Bye-law.

Whereas in certain cases ships navigating in ballast from ports or places within the United Kingdom to other ports or places within the United Kingdom are not exempted from compulsory pilotage,—

And whereas it is expedient that such ships should have the privilege of being exempt from pilotage in the cases herein-after mentioned,—

And whereas by the 332nd section of "The Merchant Shipping Act, 1854," it is enacted that "every pilotage authority shall have power, by byelaw made with the consent of Her Majesty in "Council, to exempt the masters of any ships or of any classes of ships from being compelled to "employ qualified pilots, and to annex any terms and conditions to such exemptions,"—

And whereas the Trinity House of Depford Strond, being a pilotage authority, hath submitted for the consent of Her Majesty in Council, the following byelaw, viz.:—

"That all ships navigating in ballast from any port or place in the United Kingdom to any other port or place in the United Kingdom shall, when not carrying passengers, be exempt from compulsory pilotage within the pilotage jurisdiction of the said Trinity House."

Now, therefore, Her Majesty having taken the said byelaw into consideration is pleased by and with the advice of Her Privy Council, and by virtue of the power vested in Her by the said recited Act, to declare Her consent to the same, and the said byelaw is hereby approved accordingly.

No. 93.

Mr. Farrer to the Secretary, Trinity House.

(No. 1,790.) Marine Department, Board of Trade,
22nd July 1861.

Sir,

With reference to your letter of the 6th February last, inclosing a proposed byelaw on the subject of the compulsory pilotage of ships in ballast.

I am directed by the Lords of the Committee of Privy Council for Trade to state that as there is now no chance of any measure concerning pilotage being passed this session, it is, in my Lords' opinion, desirable that the views of the Elder Brethren, as contained in the proposed byelaw, should be carried into effect.

My Lords suggest, therefore, that the byelaws should be published, as required by the Act, which may, my Lords think, be done by advertising it in the "Shipping Gazette;" and if no reason to the contrary should appear in the mean time, my Lords will forward it for the approval of Her Majesty at the next Council.*

I have, &c.

Secretary, Trinity House. T. H. FARRER.

No. 94.

Mr. Rothery to Mr. Farrer.

Admiralty Registry, Doctors Commons,
20th February 1861.

Sir,

I am directed by the Right Honourable Stephen Lushington, the Judge of the High Court of Admiralty of England, to send you herewith, for the purpose of its being laid before the Lords of the Committee of Privy Council for Trade, copy of the papers in a case called the "Earl of Auckland," which has recently come before him, and of his judgment therein, as reported in the "Law Times" of the 16th instant, and I am to request you to call their Lordships' attention to the very great confusion which, on a review of the Act of Parliament and the Orders in Council, appears to him to exist on the subject of pilotage.

I have, &c.

T. H. Farrer, Esq., H. C. ROTHERY.
&c. &c.

Enclosure in No. 94.

JUDGMENT.

The vessel proceeded against in this case, the "Earl of Auckland," was a steamer engaged in trade between the ports of London and Rotterdam, and licensed to carry passengers. On the 1st Dec. 1859, being in the River Thames on a voyage from Rotterdam to London, she came in collision with a vessel called the "Betsy;" at that time she had on board a licensed pilot. The Court, with the advice of the Trinity Masters, has held that the blame of the collision is solely attributable to the default of the pilot. The question is, therefore, whether, under the circumstances, the owners of the "Earl of Auckland" are liable for the damage. They are liable, unless it was compulsory on the ship by law to employ the pilot. The proof is upon the defendants. They say that, by the Merchant Shipping Act, 1854, and a certain Order in Council, they were compelled to employ the pilot; the plaintiffs deny this, and say further, that if the Statute or Order in Council imposed such an obligation it was removed by the certificate of the master granted by the Board of Trade. To this the defendants reply that the certificate was void. These at least are the questions which have been discussed in argument. The River Thames, where the vessel was navigating, is within the pilotage jurisdiction of the Trinity House

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* See Order in Council of 25th July 1861.

as defined by the 370th sect. of the Merchant Shipping Act; and the 376th sect. makes it generally compulsory under a penalty upon every vessel therein navigating to employ a licensed pilot. To this, however, there are exceptions, or, as they are called, exemptions; and the counsel for the defendants say they are to be looked for in sect. 379, and there only. The 353rd sect., however, enacts as follows: "the employment of pilots shall continue to be compulsory in all districts in which the same was by "law compulsory immediately before the time when this Act comes into operation, and all exemptions "from compulsory pilotage then existing within such districts shall also continue in force." The word "then" here used clearly means the date immediately before the time of the Act coming into operation. Now up to the time of the Merchant Shipping Act coming into operation, the old Pilot Act, 6 Geo. 4. c. 125, was in force. It was repealed by the Merchant Shipping Repeal Act, 17 & 18 Vict. c. 120, which by the 3rd sect., is appointed to come into operation at the same time as the Merchant Shipping Act, 1854. By the 59th sect. of the Act of Geo. 4, vessels under the following circumstances were exempted from compulsory pilotage, namely:—British ships coming inwards from ports between Boulogne and the Baltic by the north channel; and by Order in Council of the 18th Feb. 1854, that exemption was extended to ships trading between Boulogne and the Baltic on their outward voyages, and when coming up the south passage. The united effect of the Statute and the Order in Council would be to confer on all vessels trading between Boulogne and the Baltic, whether coming up by the north or south channel, the privilege of exemption from compulsory pilotage. No distinction is made between ships carrying passengers and ships not carrying passengers. This exemption therefore was in force immediately before the Merchant Shipping Act, 1854, and the question is not whether it continues in force by virtue of the Statute of Geo. 4, which it clearly does not, for that Statute is repealed by the Merchant Shipping Repeal Act; but whether it does not continue in force by virtue of the 353rd sect. of the Merchant Shipping Act, which I have stated. The language of the sect. itself is clear and unambiguous, that all existing exemptions shall continue; but immediately previous to the section are to be found these words by way of heading, "Compulsory pilotage (general)." It may be a question what is the meaning of these words, especially with reference to the heading preceding the 376th sect. "Compulsory pilotage (Trinity House);" they may include the latter or they may not. But apart from these particular words, I cannot doubt that, upon the true construction of sect. 353 alone, the exemption given in the Act of Geo. 4, is continued. But it has been contended that the Court must come to a different conclusion, by reason of the 376th and 379th sects. of the Merchant Shipping Act. The first answer to this argument is, that the Court of Queen's Bench has had before it this same question (*Reg.* v. *Stanton*, 8 E. & B. 445)—whether in a matter of penalty or not signifies little—and the Court has construed the Statute to continue the exemption. Now, in the construction of a Statute, it is an established rule that the Court of Admiralty shall act in conformity with the decisions of the courts of common law, and for strong and wise reasons too apparent to require comment. To this rule I am bound to adhere, and nothing short of a conviction that the court of common law has been misled by the misrepresentation or concealment of facts so palpable that they would repudiate their own judgment if the case came again under their consideration, would induce me to depart from the rule. It is my duty to bow to the judgment of the Court of Queen's Bench. It is true that the intention of the Legislature might have been expressed in less ambiguous language. The object might have been effected by enacting that all ships trading from the described ports, whether with or without passengers, should be exempted, but this would have been a reiteration of the 353rd sect. I will add, however, that in my mind the difficulty, if any, arises from the circumstance I have mentioned—not, so far as I know, discussed in the Queen's Bench—that the 353rd section is entitled "Compulsory pilotage (general)," and the 376th "Compulsory pilotage (Trinity House)." It may be that the Legislature did not intend the 353rd sect. to embrace the Trinity House district, but left that district to the operation of the 376th and following sects. The Court of Queen's Bench, however, did not take this view, and I cannot differ from its judgment. Apart, however, from this consideration, there is not that repugnance created by the 376th and 379th sects. which could affect the construction of the 353rd, so as to take away an exemption given by it. If the case rested here, the result would be that the taking the pilot was not compulsory, and consequently the owners of the "Earl of Auckland" would be liable for the damage. But since the date of the transaction which came under the consideration of the Court of Queen's Bench, an Order in Council, bearing date 16th July 1857, has been issued. This Order in Council derives its authority from the 332nd sect. of the Merchant Shipping Act. What is the meaning and effect of this Order? I will first ascertain it by reference to its own contents only. The Order first recites the 379th sect. of the Merchant Shipping Act, which enacts that certain classes of ships, when not carrying passengers, shall be exempt from compulsory pilotage in the London and Trinity House out port districts; then it recites that it is expedient that such ships as aforesaid shall be exempted when carrying passengers, as when not carrying passengers; then it recites the 332nd sect. of the same Act, which gives power to make bye-laws, and to exempt from compulsory pilotage under condition. The Order then confirms a proposed bye-law, which exempts all ships mentioned in the 379th sect. of the Merchant Shipping Act from compulsory pilotage in the London and Trinity House out port districts, when carrying passengers, provided the master or mate have a pilotage certificate. Looking at the contents of this Order alone, I cannot perceive that there is the least doubt as to what is its true meaning. It proceeds upon the assumption that ships on the described voyages, not carrying passengers, were exempt from compulsory pilotage, that carrying passengers they were not exempt, and it exempts them on condition. But here comes the difficulty. The Court of Queen's Bench has said that such ships on the described voyages, though carrying passengers, are exempt from compulsory pilotage by the Statute, so that the foundation of this Order fails. Then, if the Order merely exempted them, it is a nullity—it does nothing. But it purports to exempt upon condition. Is that condition validly and absolutely imposed by this Order in Council? Or, is the whole Order in Council a nullity? It is my belief that this Order in Council was issued upon the foundation, if I may use such a term, that the 353rd sect. did not apply to compulsory pilotage in the Trinity House district, but upon the supposition that the Trinity House district was governed by the 376th and following sects., and consequently that ships exempted by sect. 379, when not carrying passengers, were not exempt when carrying passengers

Unless this Order was framed upon such a supposition, and for such a purpose, I am utterly unable to understand why it was issued, or what object it was intended to attain. But, however, this may be, I cannot bring myself to believe that the condition imposed by the Order was not intended to take effect; and thus arises this question: assuming the decision of the Court of Queen's Bench to be right, viz., that ships within the description carrying passengers were exempt without condition, then was it competent by Order in Council to impose a condition which had not previously existed? This question depends upon the 332nd sect. of the Act, which grants power to every pilotage authority, by byelaw and consent of Her Majesty in Council, to grant exemptions, and to annex any terms or conditions to such exemptions, and to revise and extend existing exemptions. It is clear, I think, that if the ships in the described districts carrying passengers were not exempt from compulsory pilotage, this Order in Council would be effectual, and the condition annexed binding; but if, as decided by the Court of Queen's Bench, they were already exempt by the 353rd sect., I have great doubt whether the 332nd sect. enables a pilotage authority, with the assent of the Privy Council, to annex a condition. Upon this view of the case the Order in Council does not grant an original exemption, nor does it revise and extend any previous exemption. In one sense of the word, indeed, it may be said to revise the exemption, but it certainly does not extend, for it restricts, and I question whether it is competent to "revise" by annexing a condition not before existing. I come to the conclusion that this Order has not any operative effect. I will consider, however, for the moment that the Order in Council is operative, and the condition absolutely imposed. The question then arises whether that condition has been fulfilled or not namely, whether the master or mate of this vessel had a pilotage certificate in force, granted under the provisions either of the 340th or the 355th sects. of the Merchant Shipping Act. The 340th sect. gives power to pilotage authorities, that is say, the London Trinity House and other authorities coming within the definition in the 2nd sect., to issue certificates to masters or mates, each certificate enabling the holder to pilot ships specified therein. The 355th sect. enables the Board of Trade to grant certificates to masters or mates of ships which by the sect. immediately preceding the 345th, are made subject to compulsory pilotage. Now the certificate in issue in this case was issued by the Board of Trade, and purports to be issued under the 355th sect. of the Act. Now is the "Earl of Auckland" included in the class of ships specified in the 354th sect.? For if not so included, no certificate from the Board of Trade will avail. The terms of the 354th sect., "every ship carrying passengers between "any place situate in the United Kingdom, or the islands of Guernsey, Jersey, Sark, Alderney, and "Man, and any other place so situate," do not, they cannot, include a voyage between Rotterdam and London. But again—for I do not wish to leave questions that have been argued by counsel—there is another flaw in this certificate. The 355th sect. enacts that a certificate issued by the Board of Trade shall authorize the holder to pilot any ship or ships "belonging to the same owner," and of a certain draft of water. The certificate actually held by the master authorized him to pilot "any ship being "the property of William Henry Carey, of London, and not drawing more than eleven feet of water." It originally bore date on April 30, 1855, and was renewed from year to year, annually on 1st May, the last renewal bearing date 1st May 1860. Now it is clear that neither at the time of the collision, nor at the date of the original certificate, nor at the time of any of the renewals, was the ship the property of Mr. Carey. Mr. Carey was only the broker and manager of the ship, and hence the mistake; the fact being that at the time of the collision the ship was the property of the General Screw Steam Shipping Company, that on the 31st December 1856 it was transferred to Mr. Carey, and the same day retransferred to Messrs. Malcolmson Brothers, who continued the owners up to the time of the collision, though on the register the name of the General Screw Steam Shipping Company still remained. The certificate therefore contain a misdescription of the ship's ownership. What is the effect of this misdescription? I am of opinion that the terms of the 355th sect., "any ship or ships "belonging to the same owner," necessarily infer that the name of the owner should be mentioned, and that the certificate therefore cannot be considered a certificate granted in compliance with the terms of the Statute. It may be true indeed, that the most essential statement in the certificate is the statement of the master's examination; but I conceive the object of the specification is to prevent the master acting as pilot for any ship that does not belong to the owner specified. For these reasons I am of opinion that this certificate was invalid to permit the master to pilot the "Earl of Auckland:" first, because no such certificate could be granted by the Board of Trade; and, secondly, because it contained an erroneous statement of ownership. According to my view, however, it is really unnecessary for the decision of this case to consider the certificate at all. By the judgment of the Court of Queen's Bench this vessel was exempt by the Statute from compulsory pilotage, and I cannot hold that this exemption was narrowed by implication by the Order in Council of 16th July 1857. I must therefore, upon consideration of all the circumstances, come to the conclusion that the employment of the pilot was not compulsory, and that the owners of the "Earl of Auckland" are liable for the damage. I must condemn them in that damage and in the costs up to and including the hearing before the Trinity Masters. With regard to subsequent costs, I shall leave each party to pay his own costs.

No. 95.

(No. 4,838.) Mr. Carr to Mr. Farrer.

Sir, Newcastle on Tyne, 22nd April 1861.

In accordance with the wish of my friend Mr. R. P. Philipson, I beg now to draw your attention to some of the clauses of the Merchant Shipping Act, which in the opinion of many shipowners and myself require to be altered:

* * * * * * *

Part 5th.—Pilotage.—This is a subject of vital importance to shipowners, and one which the London gentlemen who were examined by the Merchant Shipping Committee seem not

to understand in its true bearings. In all ports throughout the country it is found that where it is optional to take or refuse pilots' services they are, without almost an exception, taken; indeed, no owner who knows his responsibilities would refuse to do so, and in all those places there is an emulation amongst the men to give satisfaction and an anxiety to attend to our wishes. The contrary is the fact where pilots' services are compulsory, who know they have a monopoly and you must take them, who appear on board of our ships as masters instead of servants, and who are to be sent for when wanted instead of what is their duty, to come to the ship to inform the master when the opportunity for sailing presents itself, and to assist with judgment in getting ready. You will render great service if you can alter the present compulsory system.

If you do so, sect. 388 will not be required. It is now not just in its operation, and I will give you an example. Supposing an East Indiaman proceeding down the Thames in charge of a licensed pilot runs into a screw collier worth 12,000*l.* and sinks her, and it is proved that the pilot was alone to blame by an error of judgment, the owner of the screw collier has no redress. The pilots have houses in other people's names, and if possessed of property, it also is in other names. But, on the contrary, if the collier is found to blame, she not having a licensed pilot on board, her owners are liable to the owners of the East Indiaman to the value of 12,000*l.* and the amount of freight on board. The proper course is to make the pilot the servant of the owner who employs him, and who therefore would be liable for him the same as he is for his master.

I hope you will be able to get the above subject brought under discussion, and, as far as possible, remedied. If you require any information, I will be glad to do what I can to obtain it.

I am, &c.

T. H. Farrer, Esq.,
Marine Department, Board of Trade.

JOSEPH CARR.

No. 96.

Mr. Moss to Mr. Farrer.

(No. 4,934.)

38, Gracechurch Street, London, E.C.
24th April 1861.

Sir,

Merchant Shipping Amendment Act.

By the desire of Mr. Milner Gibson on Saturday last, when before the deputation, I beg to enclose you the statistics and also the proposed amendment of the Act in the way determined on by the gentlemen who waited upon Mr. Gibson. You will observe that it is not wished to abolish compulsory pilotage, but only to make the shipowner liable for the damage done by his vessel although under the control of a pilot, in the same way that all masters are responsible for the default of their servants.

There are petitions now being signed by the trade, so that I shall be glad to hear from you when it will be necessary that these petitions should be in hands of members present, and also when Mr. Milner Gibson intends to move his proposed amendment.

I am, &c.

T. H. Farrer Esq.,
Secretary, Board of Trade, S.W.

J. T. MOSS.

Enclosure 1 in No. 96.

The Merchant Shipping Act, 1854.

Proposed Amendment.

That the 388th section be and it is hereby repealed.

That on such repeal and in lieu thereof be it enacted, that the owner of any ship or vessel shall, in the first instance, be answerable to any person for loss or damage which shall be occasioned by or through the default or negligence of any such ship or vessel.

Encl. 2 in No. 96.

List of Cases where Damage has been caused by Vessels under the Charge of duly licensed Pilots, and the Amount not recovered as against them during the Years 1860–61.

Plaintiff's Name.	Vessel's Name.	Owner's Name.	Pilot's Name.	Amount of Damage.	Result.
				£	
Dawson	"Brenda"	Robinson	Hedley	5	Pilot worthless and claim abandoned.
Howard	"Temora"	Robinson	Hambleton	20	Claim abandoned; pilot unable to pay.
Wright	"Mary Scott"	Scott & Co.	Murray	15	Pilot denied liability.
Lee, Son, and Co.	"Bong"	Russian Flag	Brownfield	150	Pilot threatened to petition the Court.
Everist	"Alliance"	Elliott	Edwards	60	Pilot worthless and claim abandoned.
Everist	"Una"	Robinson	Chapman	5	Claim abandoned; pilot unable to pay.
Cooper	"E. Anglian"	Johnson & Co.	Pascoe	50	Pilot unable to pay.
Tuff	"Ondine"	Robinson	Voss	25	Five claims against this pilot, one for 350*l.*
Morgan	"Wesley"	Pearson & Co.	Rae	80	Suit in the Admiralty Court; plea of pilot put in
Flower	"Magnet"	Malcolmson	Voss	350	Suit in the Admiralty Court; plea of pilot put in.
Huggins	"Beaver"	Robinson	Elliott	10	Pilot unable to pay; two claims against this man.
Fox and Son	"Hamburg"	General Steam Co.	Hedley	35	Unable to pay two claims, amounting to 180*l.*
Carter	"Indianna"	Lever I. O.	Pidgeon	5	Pilot denied liability and abandoned.
Downey	"Hamburg"	Dandee Co.	Hedley	125	Pilot unable to pay two claims against him.
French	"Lion"	Robinson	Voss	10	Five claims against this pilot.
Flower	"Diana"	Robinson	Voss	40	Five claims against this pilot.
Ellis	"Black Prince"	Screw Co.	Harrison	30	Pilot paid 10*l.* in discharge.
Howard	"Neptune"	Austrian Flag	Elliott	20	Abandoned after action brought.
Hamilton	"E. Smithson	Smithson	Hollsey	7	Pilot unable to pay.
Thames Tug Co.	"Dundee"	Dundee Co.	Rodway	5	Abandoned; pilot unable to pay.
Knapping	"Una"	Robinson	Bromley	5	In abeyance at present.
Fox and Son	"Gothenburg"	Hall & Co.	Warner	8	Action brought; pilot threatens to petition the Court.
Underwood	"Gibraltar"	Hall & Co.	Warner	8	In abeyance at present; one action pending.
Hills	"J. A. Parks"	American Flag	Martin	5	In abeyance at present.
Barrett	"Raphæl"	Austrian Flag	Arnold	10	Abandoned; pilot unable to pay.
Lee	-	-	Voss	200	Pilot worthless; every penny lost.
Rock	"Dragon"	General Steam Co.	Hedley	12	Pilot sued, and paying debt by instalments.

Enclosure 3 in No. 96.

Amendment of the Merchant Shipping Act of 1854 (17 & 18 Vict. cap. 104, part 5).

Pilotage.

The following observations are respectfully submitted to the consideration of Members of the House of Commons, with reference to the proposed motion of the President of the Board of Trade for a Committee of the whole House on the Merchant Shipping Act of 1854.

The risk of collision is now one of the most serious to which craft plying on the River Thames is liable, and the number of steamers running direct courses and not always slackening speed at night, in foggy weather, or in crowded pools, is annually increasing. A collision with resulting damage having taken place between two vessels, and having been traced to fault in one of them, the owner of the vessel in fault should be the sole sufferer; but a degree of immunity has long been allowed to owners of vessels by reason of the law of compulsory pilotage.

This law is defined by the 388th section of the 17th and 18th Victoria, chapter 104, which enacts:—

"No owner or any master of any ship shall be answerable to any person whatever for any loss or damage occasioned by the fault or incapacity of any qualified pilot acting in charge of any such ship within any district where the employment of such pilot is compulsory by law."

The language of this section requires but little interpretation; it exempts from liability for damage all owners of vessels having a licensed pilot on board where the damage has ensued "by the fault or incapacity of the pilot," and so general are the terms in which this saving clause has been framed, that it destroys the former jurisdiction of the Court of Admiralty to proceed *in rem* by arrest to recover damage caused by one ship to another. This former jurisdiction was expressly maintained by the Pilot Act, 6 Geo. 4. cap. 125, where it was provided that nothing in the Act contained should extend to affect the powers of the Admiralty Court, and this proviso it was determined by a learned Admiralty Judge, left unimpaired the power of that Court to arrest a ship for the amount of the damage, notwithstanding the presence of a pilot.

The absence of any such clause in the present Act deprives the owner of a damaged vessel of the power to proceed against any one but the pilot, whether the damage be committed by such pilot improperly navigating a foreign or a British ship, both being liable to the same compulsory pilotage.

No remedy being therefore given to the owner of a damaged ship, but by proceeding against the pilot, his responsibility is of grave importance, and the 372nd section of the Act, fully points out how far he is liable for any damage committed by him.

By this section, every Trinity House pilot has to execute a bond for the due observance, on his part, of the regulations and bye-laws of the Trinity House; and by the following section, no qualified pilot who has executed such bond shall be liable for neglect or want of skill beyond its penalty, and the amount of pilotage payable to him in respect of the voyage in which he is engaged.

From the language of the section, it would be imagined that the above bond would be a security to the party suffering damage from the pilot's negligence to the amount of 100*l.*; but the Trinity House on being applied to for assistance to obtain the amount of the pilot's liability, decline to do so, on the ground that under the 372nd section of the Act, the personal bond given by the pilot is conditional only for the due observance of the Trinity rules and regulations, and is not applicable to matters relating to his pecuniary liability in cases of damage.

In practice, also, it is found that to sue a pilot is an useless expense, because owing to the immense responsibility placed upon them, they generally arrange to have no legal ownership in any property liable to execution; and should any judgment be obtained against them, they seek the protection afforded to them by the Court for Relief of Insolvent Debtors.

The owners of small vessels and barges incapable of insurance, thus suffer to a serious extent. The statistics of small craft in the River Thames, show that most of them are committed between Gravesend and London Bridge, within which limits branch pilots are employed, and it is estimated that one-half of the damages above 20*l.* are caused by steam vessels trading periodically to the port of London, almost without exception, in charge of a licensed pilot, who, although using all proper skill, oftentimes from the crowded state of the navigation, and the construction of modern vessels (their length rendering them extremely difficult to navigate), commits damage for which he alone is responsible, notwithstanding that the force of circumstances and not his actions is the true origin of the injury.

The arguments by the shipowner for the continuance of this oppression, on both the pilot and the small craft owner is, that as the pilotage is by the Act made compulsory, it would be unfair to saddle the owner of a vessel so forced to accept and pay for the services of a pilot with liability for the damage committed by such pilot whilst discharging his duty.

It may, on the other hand, be more strongly urged whether an owner should not in like manner be responsible for the acts of the pilot in charge of his ship, as a barge-owner for the acts of the lighterman which the law forces him to employ from a particular and limited class, or in any other trade where a monopoly of labour exists; or, in other words, why the general rule of law, as applicable to all other employers, that they shall be liable for damage done by their servants in the ordinary course of their employment, should not hold good in this instance.

It must be admitted that this rule is a just one, and no true reason seems to exist why the limitation of the law of principal and agent should be allowed to shipowners to the exclusion of every other class of principals.

The attention of the Legislature to this anomaly, which operates in favour of a particular community in the shipping world, to the loss and injury of the weaker and more humble class of ship and small craft owners, is most seriously invited, and the following suggestions are with great submission now made with a view to its alteration, viz:—

1st. That the 388th section of the Merchant Shipping Act should be repealed.

2nd. That on such repeal, and in lieu thereof, it should be enacted that the owner of any ship or vessel shall be answerable to any person for loss or damage which shall be occasioned through the fault or incapacity of any pilot in charge of such ship or vessel, and that the former jurisdiction of the Court of Admiralty to proceed *in rem* shall be revived.

3rd. That the owner of any such ship or vessel shall, with the consent of the Trinity House, be at liberty immediately after reimbursing such loss or damage, to proceed against the pilot so causing the same, and shall be entitled to recover from him the full amount of the bond mentioned in the 372nd section of the said Act.

For the Lightermen, Barge, and Smack Owners Protection Society.

John Thomas Moss,
Solicitor.

38, Gracechurch Street, London, 15th April 1861.

No. 97.

Mr. Booth to the Secretary to the Trinity House.

(No. 10,836.)

Marine Department, Board of Trade,
10th October 1857.

Sir

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the enclosed copy of a letter and resolution from the London Local Marine Board recommending the establishment of a pilot station at Folkestone, and to request that you will lay the same before the Elder Brethren of the Trinity House.

I have, &c.
J. BOOTH.

The Secretary to the Trinity House.

Enclosure in No. 97.

Local Marine Board, 71, Cornhill, 3rd October 1857.

Sir,

I beg to inform you that this Board have directed their attention to the great eligibility of the port of Folkestone for a pilot station, and after much consideration passed the following resolution:—

"That it is the opinion of this Board that the establishment of a pilot station at Folkestone would be highly beneficial to the shipping interest, and that the same be strongly recommended to the favourable consideration of the Lords of the Committee of Privy Council for Trade and the Honourable the Corporation of the Trinity House."

This Board trust that their Lordships will use their influence with the Trinity Board to carry out an object of so much importance.

I am, &c.
D. Dunbar, Chairman.

The Secretary, Marine Department, Board of Trade.

No. 98.

Mr. Booth to the Secretary to the Trinity House.

(No. 11,511.) Marine Department, Board of Trade,
Sir, 26th October 1857.

With reference to the letter from this department of the 10th instant, enclosing copy of a communication from the London Local Marine Board recommending the establishment of a pilot station at Folkestone, I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for the information of the Elder Brethren, the enclosed copy of a memorial from the Trinity Cinque Ports pilots of Deal, praying that before entertaining this application some inquiry may be made into the circumstances of the case.

I have, &c.
The Secretary to the Trinity House. J. BOOTH.

Enclosure in No. 98.

To the Right Honourable the President, the Vice President, and the Committee appointed for the consideration of matters relating to Trade and Foreign Plantations.

The respectful memorial of the undersigned Trinity Cinque Ports Pilots of Deal,

Humbly sheweth,

That your memorialists have learnt that an application has been made to your Honourable Board or to the Honourable the Trinity Board respecting the necessity of an alteration in the present pilot arrangements and setting forth that it would be of advantage to the mercantile marine if Folkestone were made a station for the residence and shipping of pilots.

Your memorialists most respectfully beg to submit to your Honourable Board that such an alteration could not be productive of the benefits suggested, but on the contrary would be productive of confusion in the general working of the pilot service, without any corresponding useful or beneficial results to the shipping interest, and your memorialists beg to bring before your notice the following facts bearing on the question.

As your Honourable Board is fully aware, Folkestone is situate between Dungeness and Dover, the station for the two cruising cutters belonging to the Trinity Cinque Ports pilots, and the usual course of vessels passing towards the Downs, is at a distance of about four miles from the Folkestone shore. That in this course they can hardly avoid the cutters, unless it is purposely, which occasionally happens, or unless during very stormy weather, with the wind from the southward. That in the former cases, vessels would certainly not go into Folkestone to ship a pilot, and in the latter cases it would be impracticable and dangerous for ships to do so, on the contrary, they are compelled to keep as far out as possible, to prevent being embayed, and so unable to weather the South Foreland. Ships under these circumstances, must of necessity run for the Downs to ship their pilot if they miss the cutters. That during strong southerly winds, there is also a heavy sea rolling in to the land by Folkestone, which at times would prevent a pilot embarking from the shore, even if a ship should venture to run the risk of coming in for the purpose. And that it is during the time that the wind is from the southward, that the greatest demand is made on the pilot service. The only times, therefore, that pilots would be shipped from Folkestone would be in moderate weather, when vessels are more readily and with less delay supplied from the cruizing cutters, and the occasions when from the boisterous weather they missed the cutters, would be exactly those when Folkestone would be useless for the shipping of pilots.

That the present pilot arrangements of the Honourable the Trinity Board, your memorialists venture to submit, are efficient, and work well and satisfactorily, and your memorialists venture to hope that your Honourable Board will, before entertaining the application for any such alteration as suggested, cause some inquiry to be made into the circumstances of the case, when they confidently believe that you will find that the alteration applied for is really not needed, and would be of no practical advantage to the shipping interest, and that it will be found, therefore, unnecessary to disturb or alter the existing arrangements for the pilot duty.

In conclusion, your memorialists earnestly trust that your Honourable Board will believe that in laying the present memorial before you, they are not actuated by any narrow or unworthy notions, and by no means to impede any alteration which might tend to the improvement or efficiency of the service, that they will be found at all times ready to aid and promote the carrying out of any practical improvement for the general good and benefit of the shipping and mercantile interest, but which in their humble opinion, the alteration at present proposed would not tend to.

And your memorialists, as in humble duty bound, will ever pray, &c.

James M. Gosley.	Thomas J. Dair.	Charles B. Gillman.
Aaron Burton.	James H. Bingham.	James W. Usher.
Thomas Ralph.	John S. Pembrooke.	Valentine Myhill.
W. R. Collard.	George Palmer.	William R. Anderson.
James L. Hubbard.	Morris Moulton.	George Ralph.
John D. Gillman.	Stephen Norris.	William Warman.
John E. Apps.	Henry Hinds.	J. B. Millen.
W. S. Pott.	James Ralph.	William B. Mackie, Senr.
Joseph H. Hartley.	Henry West.	Henry C. Pett.
Richd. Rogers.	Robt. Atkins.	Richd. T. Taverner.
Thomas Paul.	William S. Elgar.	
William B. Mackie, Junr.	Tom Norris.	

No. 99.

Mr. Farrer to the Secretary, Trinity House.

(Nos. 12,531, 12,532.) Marine Department, Board of Trade,

Sir, 26th November 1857.

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the accompanying memorials from the mayor and corporation of Dover, and from the boatmen and boat-owners of that port, praying the removal of the pilot cutter lately established on the Folkestone station, and I am to request the favour of any observations the Elder Brethren of the Trinity House may have to offer on them.

I am, &c.

The Secretary, Trinity House. T. H. FARRER.

Enclosure 1 in No. 99.

To the Honourable the Board of Trade.

The humble memorial of the Mayor, Corporation, and Inhabitants of the Town and Port of Dover in the County of Kent,

Humbly sheweth,

That your memorialists have been informed that upon a petition being presented to your Honourable Board stating that a necessity existed for establishing a pilot station at Folkestone for the more efficient supply of pilots between Dungeness and this port, the Honourable the Elder Brethren of the Trinity House were pleased to order that an additional pilot cutter should be stationed off Folkestone in order to supply vessels that had passed the cutter at Dungeness without obtaining pilots, and such additional cutter is now stationed as directed.

That for many years past the shipping of pilots from this port to such vessels as have passed the cutter at Dungeness has been the great inducement for the boatmen of this port, numbering in all nearly two hundred men, with twenty sails of boats of all description, to put to sea, whereby many lives and much valuable property are saved.

That the effect of the said additional cutter being stationed between this port and Folkestone will, it is anticipated, be very injurious to such boatmen, their boats will be greatly depreciated in value and their families impoverished. Moreover these men have been at all times ready and willing at the risk of their lives to render valuable assistance to vessels in distress, and being constantly at sea on the look out for vessels in want of pilots their services were at all times available, but now this portion of their occupation being gone one great source of aid to vessels in distress will be entirely lost, and necessary communication with the shore cut off, by which the mercantile marine it is presumed will be injured in a much greater degree than it can possibly be benefited by the extra pilot cutter.

Your memorialists therefore humbly pray that your Honourable Board will be pleased to recommend to the Elder Brethren the removal of the said cutter, seeing that her being continued on the station can be in no way beneficial to the mercantile marine interest, but will be extremely injurious to a numerous and useful body of men.

And your memorialists as in duty bound will ever pray, &c.

Thos. Birch, Mayor.
S. M. Latham, J.P.
James Morsfold, J.P.
Stercher Finnis, J.P.
E. F. Astley, M.D., J.P.
Luke S. Mitchell, J.P.
G. C. Pound, Alderman.
James C. Ottaway, T.C.
Chs. Lamb, C.
L. Stride, J.P.
Edward Sibbit, J.P.
D. Birmingham, T.C.
Stephen Chalk, Alderman.
H. R. Mowll, Town Councillor.
Thos. Robinson, Town Councillor.
Lambert Weston, Town Councillor.
James Duke, Town Councillor.
John Clark, T.C.
William Freeman, Town Councillor.
J. G. Churchward, Contractor Mail Packet Service.
Henry Jenkings, Superintendent M.P.S.
George Gaskon, Town Councillor.
Richard Dickeson, Town Councillor.
William Moxon, Town Councillor.
Edmund Rogers, Alderman.
John Spain, T.C.
John Walter, T.C.
John Sims, Town Councillor.
Edw. Seward, Alderman.
William James Perry, Town Councillor.
John Iron, Harbour Master.
Edward L. Wallaston.
William H. Payne, Vice-President Chamber of Commerce.
Willm. Sueithett, 15, Waterloo Crescent.
John Geery, Master Mariner, Folkestone Road.
James Sykes, 1, Priory Terrace, Folkestone Road.
John B. Knocker, J.P.
Edw. Knocker, Proctor Cinque Ports, Admiralty.
J. Hamilton, Boat-owner.
Thos. Ismay.
William Norwood, Postmaster.
Henry Crundale, Shipowner.
James Clark, Shipowner.
Henry Barber, Shipowner.
William Gravener, Shipowner.
Geo. Mills, Shipowner.
James Mills, Shipowner.
Edward Robinson, Shipowner.
William Bussey, Shipowner.
Robert Duke, Shipowner.
Edward Leo Hoblyn, Superintendent, Wickham station.
William Hammond, Shipowner.
Edward Relcowll, Shipowner.
Kingsby John Gasson, Merchant.
Hy. Barras, Clothier.
James A. Crundall, Shipowner.
Hodges & Co., Shipping Agent.
Lehig and Pilcher, Silk Mercers.

William Yates, Clk., Hon. Sec., Sailors Home.
William Jacobs, Secy., Dover, Chamber of Commerce.
Ran. Cockburn, Lt.-Gen., 19, East Cliff.
Odden Hambrook, 6, Stroud Street, Chemist.
William Crundall, Merchant.
John Johnson, Tailor.
William Thiselton, House Agent and Grocer
James Leigh, Grocer.
Henry Iggulden, Currier.
Benjamin Mumford, Gent.
William Ross, Cannon Street.
Jno. Dickson, Town Wall Street.
Joseph Smith, Fishmonger and Poulterer.
J. D. Squire, Wellington Arcade.
Thomas Robbins, Jeweller.
J. Podevin, Hotel Keeper.
Robert Page, Grocer, Birch Street.
George Flathman, Upholsterer.
Edward Charles Dowle, Fruit Merchant.
George Bennett, Hatter, Dover.
William Clark, Butcher, Dover.
William Simmonds, Esq.
Steinmann and Son, Jewellers and Watch-makers.
Robert London, Submarine Telegraph.
James Ealden, Baker.
T. Pepper, Butcher.
Jas. Pell, Grocer, &c.
Kennett Beecham.

Dover, November 9, 1857.

Enclosure 2 in No. 99.

To the Honourable the Board of Trade.

The humble Memorial of the Boatmen and Boat Owners of the Port of Dover, in the County of Kent,

Humbly sheweth,

That your memorialists with the utmost concern and alarm have observed that an additional pilot cutter is stationed off Folkestone in order to supply vessels with pilots for the river that may have missed the cutter at Dungeness, a necessity for such additional pilot station having been successfully urged in a petition lately presented to your Honourable Board.

That your memorialists can positively assert that it was a most rare occurrence that any ships having passed the cutter at Dungeness were not supplied by them off Dover on the usual signal being hoisted, and your memorialists beg to refer your Honourable Board to the Fellowship of Pilots at Dover for the truth of this assertion; and the supply of pilots was furnished by them at precisely the same cost as ships now pay the additional cutter.

That your memorialists in consequence of the advantage hitherto derived by them in the shipping of pilots have embarked their all in the construction of a large number of boats, with which they also tend upon ships in distress, but as this latter occupation is one of course of great uncertainty, they relied chiefly on their regular business of furnishing ships with pilots for their principal support and the maintenance of their families, of which advantage they are now by the establishment of this extra pilot cutter totally deprived.

That your memorialists will now in case the cutter is continued upon the Folkestone station be under the necessity of parting with a great number of their boats, and be themselves reduced to the utmost distress, whereby the shipping interest will also be deprived of the valuable service they are now occasionally able to render it in saving life and property.

That your memorialists confidently believe that the intention of the petitioners for a pilot station at Folkestone was not for the establishment of a pilot cutter there, but the forced residence at Folkestone of a number of Trinity House pilots for the benefit of landlords in the occupation of their houses, which advantage is lost to them by the present arrangement.

That your memorialists trust that your Honourable Board will at once see the motives which induced the petition, the slight necessity there is for the alteration, and the fatal consequences to your memorialists arising from the establishment of this extra pilot cutter, and humbly entreat your Honourable Board will order matters with regard to the shipping of pilots on this coast to revert to its previous usual course.

And your memorialists will ever pray, &c.

For the members of the Boatman's Association.

William Gravener, boat owner.
Walter Mackeen, boat owner.
John Hammond, boat owner.
Henry Mackeen, boat owner.
John Griffen, boatman.
Jerry Hammond, boatman.
Jonas Archer, boatman.
William Parist, boatman.
Frederick Hood, boatman.
John Dodd, boatman.
Bar. Edgby, boatman.
Mathew Hammond, boatman.

Dover, November 9, 1857.

No. 100.

Mr. Farrer to the Secretary, Trinity House.

(No. 13,347.) Office of Committee of Privy Council for Trade,
Marine Department, Whitehall, 14th December 1857.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Elder Brethren of the Trinity House, the accompanying memorial from the inhabitants of the Town and Borough of Deal, Walmer, and Kingsdown, praying the removal of the extra pilot cutter stationed off Folkestone.

It is requested that the memorial, with others on the same subject, may be returned to this Board at the convenience of the Elder Brethren, and that my Lords may be favoured with their opinion.

I am, &c.

The Secretary to the Trinity House. T. H. FARRER.

Enclosure in No. 100.

To the Right Honourable the President, the Vice President, and the Committee appointed for the consideration of matters relating to Trade and Foreign Plantations.

The humble memorial of the undersigned inhabitants of the Town and Borough of Deal, Walmer, and Kingsdown.

Most humbly sheweth,

That your memorialists having been informed, that a petition from the inhabitants of Folkestone has been presented to your Honourable Board, alleging the necessity for a permanent pilot establishment in that town for the more efficient supply of pilots between Dungeness and the Downs, the Honourable the Elder Brethren of the Trinity House have been pleased to order an additional cutter to be stationed off Folkestone, to supply such vessels as may have passed Dungeness without a pilot. That your memorialists beg permission to express their confident reliance in the opinion pronounced by competent nautical men, that no such necessity exists as as set forth in the said petition. That your memorialists have no desire to cast any unjust imputations on the motives of those from whom it originated, or to do more than respectfully represent their honest conviction, that the primary object of the petitioners was not so much to benefit the shipping interest as to provide an increased stimulus to the trade of the locality by the residence of pilots. That for many years the shipping of pilots to such vessels as have passed the cutter at Dungeness has been the great inducement of the boatmen of this town, numbering from 450 to 500, with about 50 luggers kept in seaworthy condition at a great expense, and for the most part constantly cruising at sea, whereby many lives and much valuable property have been rescued from destruction, and that there is too much ground for the belief that the appointment of a third cutter will soon be painfully experienced by the boatmen, inasmuch as their services, as regards the shipping of pilots, will to a great extent be dispensed with, and their occupation gone. That your memorialists fear the result will be that a brave and valuable class of men will be deprived of the means of keeping their boats in good and sufficient repair, and themselves and families doomed to the evils of poverty if not privation. That the present arrangement is calculated to operate most injuriously as regards vessels in distress, inasmuch as one great source of preservation will be greatly impaired if not entirely closed, whereby the mercantile marine, it is feared, will be injured to a much greater extent than it can possibly be benefited by the extra cutter. Under these circumstances your memorialists humbly pray that your Honourable Board will recommend the removal of the extra cutter as calculated to inflicta vital injury on a numerous and useful body of men. And your memorialists, as in duty bound, will ever pray.

The Mayor.	John Langley.	G. Long.
George Hammond, Justice of the Peace.	Thomas F. West.	G. Maryeison.
	S. H. Atkins.	William Carraway.
H. D. Reynolds, Agent.	Thos W. Allen.	William Williams.
Alex. F. W. Bird.	Nathaniel Ramell.	John Deveson, Junr.
Henry Bowman.	J. P. Ramell.	J. W. Bedwell.
J. J. King.	T. W. Denne.	S. Eastes.
E. C. Brooksby.	Francis Smith Leggott.	George Phillips.
Edward Hayward.	Benjn. Bayly.	Richd. Marsh.
George M. Moat.	William Riley.	E. Rayner.
Stephen Pritchard.	George Baker.	F. Upton.
Thos. Trott.	Henry Bish.	Israel Coleman.
Henry Thos. Hayward.	William Durban.	Richd. Redman.
Henry Charlwood Underwood.	J. M. Nisbet, Rector of Deal.	George Faddery.
Thos. Baker.	Morris Langley.	William Lass, Junr.
Henry H. Hayward.	Edwin Cornwell.	Stephen P. Chandler.
Edward Dear.	Thos. F. Woodroof.	John Simmons.
Stephen Foster.	T. W. Brudenell.	Robert R. Lownds.
William West.	R. F. Cullen.	Edward Danby Darby.
S. W. West, Ex-Mayor, Deal.	John B. Clarabut.	Robt. Harvey.
Geo. Lawrence.	Edwd. Adams.	John Reynolds.
W. E. Wielard.	William Kingsford, Junr.	William Hayman.
E. A. Giraud.	William Tipper Woodrup.	Mrs. Sarah Orrick.
F. Fitch.	William Peckham.	W. P. Myhill.
William Fells.	Zechariah Thomson Selth.	Step. Selby.
William Tucker.	Josian Bayley.	J. H. Norris.
James Redman.	William Baker.	James Vennall.
M. Williams.	Chas. West.	George Wellden.
Jas. Willey.	Richard W. Robinson.	William Hayward.
Stephen Mockett, Senr.	Phipp Cork.	William Gibbons.
Thomas Bushell.	William Castle.	Thomas G. Dapp.
Wm. Singer.	Ann Gwilliam.	John Edmans.
Samuel Pain.	Robert Smith.	B. E. Coleman.
Henry Thompson.	V. Bushell.	William Pettel.

Samuel Thompson.
John Eastman, Junr
James Wilkins.
Richd. Verrier, Alderman.
G. R. Carter, Surgeon.
R. M. Reynolds, Aldn.
John D. Eveson.
William Long.
Richard Fox.
George Hayward.
Edwd. G. Morse.
A. W. Baker.
W. D. Philpot.
Vincent Rogden.
Edwd. Brown.
E. Christian.
Charles Hutchins.
William Astrington.
William Huckstepp.
Henry West.
W. B. Marsh.
Ones Sneller.
Thomas Parker, Aldn.
Stepn. Pritchard, Justice of the Peace.
Thomas Acres.
William Dyason.
H. G. West.
Edward Austen.
Geo. Hayward.
Henry Knight.
John Hayman.
William Newing.
Simon Marsh.
H. C. Solly.
Chris. J. Selth.
J. B. Kimball.
O. Turner Warrène.
Thos. Castle.
George Lownds.
Wm. Holtung.
F. H. Diamond.
Charles Goldfinch.
J. N. Baker.
H. W. Hayward.
Osmond Packer.
John Woodruff.
James Tuck.
G. C. Rubir.
Thomas Ridner.
Charles Cavell.
James Nicholass.
Isaac Griffith Brown.
John Bayly.
Daniel Douglass.
Heny. Elven.
Thomas Turner.
T. Simmons.
Henry Marsh.
George Long.
George Hinds.
James Peake.
James Parsons.
Henry Curlbur.
Thos. M. Friend.
Robert Long.
Simon Prichard.
William Spicer.
Charles Skardon.
William Goodchild.
T. G. Hayward.

John Bookes.
W. H. Franklin.
William Carter.
William Lass.
Jonathan Capon.
Thomas Lambert.
L. P. Norris.
B. R. Eastes.
J. G. Friend.
H. C. Solly.
Thomas Parker.
Samuel Soloman.
Robett Nicholson.
William Brittenden.
Richard Gibbons.
John Ralphe.
William Kingsford.
Daniel Clarabut.
Thomas Pain.
Thomas Castle.
Thomas Wellden.
W. Ewelly.
John B. Mc. Diarmid.
William Wellden.
H. R. Box.
John Woodcock.
Jacob Vile.
Rob. Petley.
William Brown.
John Harris.
R. R. Archer.
William Watford.
George Turner.
Henry S. Coleman.
William E. Hogben.
Henry Tinhurst.
Stephen Fagg.
L. M. Pain.
W. G. Bowkes.
E. D. Toldridge.
E. J. Pritchard.
Joseph Whittall.
Stephen Mockett, Junr.
John Brothers, Senr.
George Myhill.
John Halford.
James Hills.
Thos. Hayward.
John Kennett.
James T. Hutchins.
William S. Cox.
William E. Pittock.
Valentine Selth.
George Gardner.
H. Springall.
Richard Cockings.
Isaac G. Hayward.
Henry Thomas Wood.
Edwd. Dawes.
J. Bedwell, Senr.
Robert Redsull.
John Pott.
John Woodcock.
Benjamin Wood.
George Barnes.
J. F. Dunn.
Edmd. Thompson.
Rd. Woodcock.
C. Lawrence.
Thomas Baker Bushell.
Francis William Lass.

M. Pulfney.
J. M. Browning.
Emanuel Soloman.
Thomas Allan Steed.
John Hudson Wellden.
B. T. Christian.
R. H. Collins.
Charles Gardner.
Philip John Finnis.
William Henry Finnis.
David Denne.
Henry Dunn.
Luke Pain.
Mary E. Parker.
Thos. Baker.
W. Bedwell.
Stephen Hinds.
Thomas Nash.
Wm. Weston.
William Goodchild.
Thomas White.
William Maxwell.
Wm. Denne, Junr.
John Wakenham.
Samuel Rammell.
Samuel Skardon.
William Tapley Hayward.
Edmund Frederick Long.
Samuel Risien.
George Skardon.
W. H. Archer.
James M. Chittenden.
Edward Lambert.
William Newby.
Thos. Thompson.
W. H. Ramell.
Henry Shipley.
John Hills.
George Bradnam.
J. E. Lawrence.
Geo. Forth.
Saml. Atterson.
Edwd. Hobday.
Thos. Willbey.
Robt. R. Ramell.
James Burgess.
E. Myhill.
John Eastman.
Henry Darby.
James E. Bins.
John Thompson.
Thomas Slubberfield.
Aynott Chitty Woodruff.
Henry Gardner.
George Smith.
Charles Hudson.
Edward King.
Edward Jones.
John Lang.
William Dunn.
Thomas Cayley.
John West.
Thos Simmons.
G. T. Rose.
James Mackins.
Thomas Barnes.
R. Rogers.
John Caldwell.
Edwd. Hammond.
Obadiah Martin.
Arthur Trott.

Signed by George Baker on behalf of the Boatmen of Deal, Walmer, and Kingsdown, numbering about 700.

Your memorialists beg to add that the signatures attached to this memorial are those of inhabitan householders.

No. 101.

MR. FARRER to { The MAYOR of DOVER. / The MAYOR of DEAL. / MR. WILLIAM GRASENER, Boat-owner, DOVER.

(No. 13,951.) Marine Department, Board of Trade,

SIR, 2nd January 1858.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of the memorial from,

1. The corporation and inhabitants of the town and port of Dover,
2. The inhabitants of the town and borough of Deal, Walmer, and Kingsdown,
3. The boatmen and boat-owners of the port of Dover,

praying for the removal of the pilot cutter lately established on the Folkestone Station.

In reply, my Lords direct me to transmit to you, for the information of the memorialists, the enclosed copy of a letter from the Trinity House on the subject, and to state that from the representations which have been made of the necessity for an increased supply of pilots between Dungeness and the Downs, it appears to their Lordships that the Elder Brethren have done what was best for the public service by establishing an additional pilot cutter to cruize off Folkestone.

I am, &c.

The Mayor of Dover, T. H. FARRER.
The Mayor of Deal,
Mr. William Grasener, Boat-owner, Dover.

Enclosure in No. 101.

SIR, Trinity House, London, E.C., 28th December 1857.

HAVING brought under the consideration of the Elder Brethren the memorials from Dover and Deal, transmitted in your letters of the 28th ultimo and 14th instant, praying, for the reasons therein set forth, the removal of the pilot cutter lately established on the Folkestone station.

I am directed to state, for the information of the Lords of the Committee of Privy Council for Trade, that the representations which were made to this Corporation, of the necessity for an increased supply of pilots between Dungeness and the Downs were received, not only from the residents at Folkestone but also from the shipowners and from Lloyds and several of the leading Insurance Companies in London, and at the principal out-ports, who pressed their application on the grounds that vessels frequently failed in obtaining pilots off Dungeness, and that it was therefore desirable that an additional station should be established at Folkestone.

In their consideration of these representations the Elder Brethren were satisfied that the most efficient way of meeting the wishes of the shipowners, would be to establish an additional pilot cutter to cruize off Folkestone, and however much they may regret that this arrangement should now prove injurious to the employment of the boatmen at that place and at Dover and Deal, they cannot but regard the representations made in the memorials which have been addressed to their Lordships, as affording, if correct, a proof of the efficient working of the present system.

I am directed to add that the Elder Brethren are prepared to grant licences, as vacancies occur, to any persons resident at Folkstone, who may be desirous of becoming pilots and be properly qualified for the office.

I beg to return the memorials enclosed in your letters.

And have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No. 102.

MR. FARRER to SECRETARY, MERSEY DOCKS and HARBOUR BOARD.

(No. 6,602.) Marine Department, Board of Trade,

SIR, 1st July 1859.

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you the enclosed copy of a letter from the City of Dublin Steam Packet Company, relating to the application of Messrs. Johns and Hughes, to be examined for pilotage certificates for the port of Liverpool, and containing copy of a resolution on the part of the Pilotage Committee of the Mersey Docks and Harbour Board, to the effect that it is not expedient to proceed with such examinations.

My Lords direct me to request that you will move the Board to favour their Lordships with any observations they may have to offer on the subject.

I am, &c.

The Secretary to the Mersey Docks and Harbour Board, T. H. FARRER.
Pilotage Office, Liverpool.

Enclosure in No. 102.

City of Dublin Steam Packet Company,
Office, 15, Eden Quay, Dublin, 24th June 1859.

Sir,

In compliance with your letter of 9th September last, all further action in reference to the examination of masters and mates of steamers for pilotage certificates for the port of Liverpool, was deferred until the early part of this year, when Messrs Hughes and Johns sent their written applications to the Mersey Docks and Harbour Board requesting that a day might be appointed for their examination. After considerable delay a day was named for this purpose.

Before, however, any arrangement could be made for their attendance a postponement was ordered by the Committee. Another appointment was made after some further delay, but as only one clear day's notice was given, the candidates, being engaged in their course of service between Dublin and Liverpool, were unable to attend.

The agent of our Company, therefore, requested that another time might be named with sufficient notice to allow of arrangements being made to keep Messrs. Hughes and Johns in Liverpool, and to appoint other officers to perform their duties at sea.

The Mersey Docks and Harbour Board have, however, finally declined to proceed with the examination. I beg to annex a copy of their letter.

Mersey Docks and Harbour Board,
Pilotage Office, 2 Old Church Street, Liverpool, 14th June 1859.

Dear Sir,

Herewith I forward you copy of a resolution adopted by the Pilotage Committee on the 6th instant, in reference to examinations of masters and mates of coasting steamers, viz., the question of examining masters and mates of coasting steamers having been taken into consideration in the application of Messrs. Johns' and Hughes chief officers in the employ of the City of Dublin Company.

"This Committee referring to the Consolidation Acts Bill of 1858, section 121, are of opinion,—That it is not expedient to undertake such examinations."

I am, &c.

—— Rounthwaite, Esq. (Signed) D. Rowland, Secretary.

On the part of the applicants and of the Company I now respectfully urge that the question may be disposed of on the authority of the Board of Trade, as contemplated by the Merchant Shipping Act of 1854.

I have, &c.

T. H. Farrer, Board of Trade. (Signed) W. Watson.

No. 103.

Mr. Mason to Mr. Farrer.

(No. 7,284.)

Secretary's Office, Liverpool, 15th July 1859.

Sir,

Your communication, dated 1st July, together with a copy of a letter signed W. Watson, on behalf of the City of Dublin Steam Packet Company, on the subject of the examination of masters and mates of coasting steamers for pilotage licences for the port of Liverpool, has been laid before the Pilotage Committee of the Mersey Docks and Harbour Board, by whom I am directed to state,

1. That in declining to undertake the examination of masters and mates of coasting steamers, the Pilotage Committee are exercising a discretion obviously vested in them by the 121st section in the Consolidation Acts Bill of 1858, and also by the 340th section of the Merchant Shipping Act of 1854.

2. That a heavy responsibility would be incurred by granting a pilot licence to a stranger whose character the Committee could only know by report, and who would be immediately removed from their supervision. He might have ability and pass the examination with credit, and yet by misconduct be utterly unfitted for the duty long before the expiration of the period for which a licence had been granted.

3. That the applicants are chiefly masters and mates of coasting passenger steamers, and although the Committee admit the desirability of there being a competent pilot on board such vessels, they feel that a heavier responsibility is attached to the granting of these licences than to those granted to apprentices on their first undertaking the duties of pilots.

4. That the continual changing and intricacy of the channels at the entrance of the Mersey render increasing observation and vigilance indispensible. That vigilance cannot be exercised by a person in charge of a vessel only occasionally entering and leaving the port; and the necessary knowledge of such changes (and growing changes) can only be acquired by the pilots of the port by daily experience and frequent surveys for that purpose.

The foregoing reasons the Pilotage Committee venture to hope their Lordships will deem sufficient for the Committee's declining to add to their already very onerous duties and responsibilities in governing, for the public advantage, the pilot establishment of this great port.

I have, &c.
DANIEL MASON.

T. H. Farrer, Esq., Secretary, Marine Department,
Board of Trade, Whitehall, London.

No. 104.

Mr. Farrer to the Secretary, Mersey Docks and Harbour Board, Liverpool.

(No. 7,284.) Marine Department, Board of Trade,
29th July 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 15th instant, stating the grounds upon which the Pilotage Committee of the Mersey Docks and Harbour Board have felt themselves justified in declining to examine masters or mates of coasting steamers who are desirous of obtaining pilotage certificates under the 340th section of the Merchant Shipping Act, 1854.

The following are replies which my Lords direct me to give to the reasons alleged by the Mersey Board in the order in which they stand in your letter:—

1. The examination and licensing of a pilot for general employment under the Local Act for the port of Liverpool is a totally different thing from granting pilotage to master and mates employed by any particular owner under the General Act. In the former case the pilots are the servants of the Pilotage Committee selected for general employment by persons who are quite ignorant of them, and the Pilotage Committee are, undoubtedly, responsible for the selection they make. In the latter case the masters or mates are the servants of an owner who chooses, employs, and trusts them, and the sole object of the examination is to exempt a man who is proved to possess certain technical knowledge from the necessity of employing a licensed pilot. Although the 340th section of the Merchant Shipping Act, 1854, provides that a pilotage authority may examine masters and mates, or may decline to do so, "if it thinks fit," the 342nd section makes the Board of Trade responsible for correcting an improper use of the discretion thus given, and implies that that discretion shall be fairly and liberally exercised.

2. The Mersey Board in granting the licences in question will be assuming no responsibility whatever, except that of ascertaining at the examination that the applicant possesses a certain degree of local knowledge of the navigation of the port.

3 and 4. That masters and mates of steamers making short voyages in the home and coasting trades cannot be so long absent from the port as to be ignorant of the changes that may from time to time take place in the channels, more especially as the certificates, if granted, must be renewed annually; if such changes become serious it is the duty of the Mersey Board to move buoys or lights, and to give due notice of any alteration that they may have deemed necessary.

No person in command of a coasting steamer ought therefore to be ignorant of any important changes in the channel.

I am further to observe that the Trinity House and other pilotage authorities have long been carrying the obvious intentions of the Act into effect without difficulty and without evil consequences.

In conclusion I am to state that should the Mersey Board fail to comply with the intentions of the Merchant Shipping Act, 1854, and to examine the persons who have applied them, my Lords will consider that circumstances have arisen, which in their judgment require that they should exercise the powers given them by the 342nd section of that Act, for the appointment of persons to examine masters and mates, and for the granting of pilotage licences.

Under these circumstances my Lords request an answer as to the final determination of the Mersey Board.

I have, &c.
T. H. FARRER.

The Secretary, Mersey Docks and Harbour Board,
Liverpool.

No. 105.

(No. 10,142.) Mr. Mason to Mr. Farrer.

Sir, Secretary's Office, Liverpool, 7th October 1859.

I beg to enclose you the copy of a resolution passed by the Mersey Docks and Harbour Board at their meeting yesterday, with reference to granting licences to the masters or mates of coasting steamers, to pilot the vessels to which they may for the time belong, into or out of the port of Liverpool.

I am, &c.

T. H. Farrer, Esq., Assistant Secretary of the Marine Department of the Board of Trade. DANIEL MASON.

Enclosure in No. 105.

At a meeting of the Mersey Docks and Harbour Board, held the 6th day of October 1859.

Present,

Charles Turner, Esquire, Chairman.

&c. &c. &c.

Resolved,— Dock Office, Liverpool, 7th October 1859.

That upon the application of the owners of any coasting steamer, this Board will admit to examination, and, if he be found competent, will license the master or mate of any such steamer to pilot the vessel to which he may for the time being belong, and while such vessel shall continue the property of the same owners; but subject to all the existing rules and regulations relating to Liverpool pilotage, except in so far as they are necessarily varied by the present resolution. And that a copy of the resolution be transmitted to the Board of Trade.

Extracted from the proceedings.

The Secretary of the Marine Department, Board of Trade, London. Danl. Mason, Secretary.

No. 106.

Mr. Booth to the Secretary, Mersey Docks and Harbour Board, Liverpool.

(No. 10,142.) Marine Department, Board of Trade, 28th October 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 7th instant, transmitting copy of a resolution passed by the Mersey Docks and Harbour Board, with reference to granting certificates to masters and mates of coasting steamers to pilot the vessels to which they belong, into or out of the port of Liverpool.

I am to request that you will express to the Board the great satisfaction with which my Lords have received this intimation of their proceedings in this matter.

I have, &c.

The Secretary, Mersey Docks and Harbour Board, Liverpool. J. BOOTH.

No. 107.

Mr. Watson to Mr. Farrer.

(No. 10,571.) City of Dublin Steam Packet Company, Office, 15, Eden Quay, Dublin, 18th October 1859.

Sir,

On the 24th of June last I had the honour to address you in reference to granting Liverpool pilotage certificates to the commanders and officers of our ships, duly qualified to claim them from the Board of Trade, as contemplated by the 355th sect. of the Merchant Shipping Act, 1854.

I beg now to renew that application, and, at the same time, to express the strong feeling of the Board of Directors, that the question should be dealt with by the Board of Trade (as has been done elsewhere) in compliance with the 355th sect. of the Act, without further reference to the local pilotage authority.

I have, &c.

T. H. Farrer, Esq., Board of Trade. WILLIAM WATSON.

No. 108.

MR. WATSON to MR. FARRER.

(No. 156.) City of Dublin Steam Packet Company,
SIR, Office, 15, Eden Quay, Dublin, 2nd January 1860.

I HAVE the honour to draw your attention to my letters of 24th June and 18th October last, requesting that the Board of Trade would be pleased to carry into effect the 355th sect. of the Merchant Shipping Act.

No reply has yet been received to either of those applications.

It is now nearly five years since the law came into operation authorizing the masters and mates of passenger vessels to apply to the Board of Trade for certificates to enable them to pilot the vessels of their employers, without incurring the penalties of the preceding section of the Act; during that period the subject has been repeatedly brought before the attention of the Board of Trade with reference to the port of Liverpool, though as yet without success, for up to the present time, in no case has a certificate been obtained, except those which were originally issued in 1855 for the previous two years' service.

I beg to state that four of the officers of the Company who obtained their service certificates in that year have since died; the case is, therefore, becoming very pressing that their successors may be legally authorized to take the vessels of the Company in and out of Liverpool, a duty which the Directors consider them so well qualified and competent to perform, that they would feel no hesitation whatever in intrusting their valuable ships (which are uninsured) to be piloted on their sole responsibility.

I have, &c.

T. H. Farrer, Esq., Board of Trade. WM. WATSON.

No. 109.

MR. FARRER to MR. WATSON.

(No. 156.) Marine Department, Board of Trade,
SIR, 7th January 1860.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 2nd inst., referring to former letters addressed by you to this department, on the subject of the examination of masters and mates for certificates of pilotage.

I am to acquaint you, for the information of the Directors of the City of Dublin Steam Packet Company, that upon the receipt of the application from the Company on this subject, a long correspondence took place between this Board and the Mersey Docks and Harbour Board, the result of which has been the adoption of the resolution of that Board, a copy of which is annexed.

The Mersey Board having decided to examine masters and mates of coasting steamers who are desirous of obtaining certificates of pilotage, the officers of the City of Dublin Company should make their application to that Board accordingly.

My Lords regret that your former letters which gave rise to the correspondence referred to should have been accidentally left unanswered when the correspondence with the Mersey Board terminated. At the same time they believe that the resolutions and discussions of that Board were published at the time.

I am, &c.

W. Watson, Esq., City of Dublin Steam Packet Company, Dublin. T. H. FARRER.

No. 110.

MR. WATSON to MR. FARRER.

(No. 3,112.) 15, Eden Quay, Dublin,
SIR, 5th March 1860.

YOUR letter of 7th January last, which I had the honour to receive from you in reference to the applications made on behalf of some of the officers of the Company for pilotage certificates for the port of Liverpool, was fully considered by the Board of Directors, and although we duly appreciate the efforts made by the Board of Trade to have the question disposed of in a satisfactory manner by the local authorities of the port, yet, for the reasons so often urged, and as we continue to entertain well grounded apprehensions lest the same views might be still entertained in that quarter, it was considered

necessary to request that the President would be pleased to favour a deputation of Directors with an interview for the purpose of more fully explaining the circumstances and of urging on his attention the justice of our claims, that the case might be dealt with without further reference to the Mersey Docks and Harbour Board.

I have now to convey the thanks of our Board of Directors that the President has seen fit to comply with our request, by agreeing to carry into effect the proposal which I made to you in my note of 13th ult., namely :—

To grant pilotage certificates to such commanders as may be in possession of—

1st. A master's certificate.

2nd. Our certificate that we desire him to act as pilot, considering him fully qualified to do so.

3rd. That he has for the two previous years frequented the port either as master or first officer of a steamer duly authorized to carry passengers.

Acquiescing in the views of the Board of Trade that their certificates do not exempt the owners of the vessels from pilotage charges, we have hitherto paid the Liverpool reduced rates for our vessels, though commanded by officers who hold the pilotage service certificates first issued by the Board of Trade in April 1855, and since then annually renewed.

We purpose in the same manner to pay without question these charges to the Liverpool pilotage establishment for the vessels commanded by officers holding the certificates agreed to be granted in future by the Board of Trade; but at the same time reserving the right of claiming examinations and certificates from the Mersey Docks Board at any future time, inasmuch as these certificates would have the effect of relieving the Company from the payment of all pilotage dues whatsoever.

I have, &c.

T. H. Farrer, Esq., W. WATSON.
Board of Trade.

No. 111.

MR. FARRER to MR. WATSON.

(No. 3,112.) Marine Department, Board of Trade,
17th March 1860.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to state, for the information of the Board of Directors of the City of Dublin Steam Packet Company, in reply to your letter of the 5th instant, that, considering the statement made at your interview with the President of this Board and in that letter, considering especially that the Company only seek for exemption from the obligation imposed by the Merchant Shipping Act, that the object of that obligation is to ensure the safety of passengers by securing the presence of an officer acquainted with the local navigation, and that there is no better test of such acquaintance than actual practice and experience; considering further the difficulties to which according to your statements the Company would be exposed in consequence of the regulations of the Liverpool pilots, which do not require them to go out at night, the Board of Trade will not refuse to grant certificates under the 355th sect. of the Merchant Shipping Act on the terms mentioned in your letter.

It is of course understood that by the experience of the port mentioned in the 3rd of the conditions it is intended that the applicant shall not only have been on board a ship or ships frequenting the port during the two years, but that he shall have been in charge of the ship and have taken an active part in navigating her. This experience will be proved and checked in the same way as in the case of the pilotage certificates of service already granted under the above enactment.

I have, &c.

W. Watson, Esq., T. H. FARRER.
15, Eden Quay, Dublin.

MEM.—The Board of Trade have, since June 1860, granted thirteen pilotage certificates under the 355th sect. of the Merchant Shipping Act, 1854, to masters and mates of passenger steamers, authorizing them to pilot their vessels into and out of the port of Liverpool on the terms and conditions specified in Mr. Watson's letter of 5th March 1860.

No. 112.

Extract from Report of the Mercantile Marine Service Association of Liverpool, Dated Feb. 7, 1860.

"Learning that the pilot committee of the Mersey Docks and Harbour Board were about to appoint examiners for the examination of masters and officers of coasting steamers for pilotage certificates, the Council suggested to the pilot committee the advisability of the association being allowed to recommend one of such examiners. The Council was, however, informed that the superintendent of pilots, the marine surveyor, the assistant marine surveyor, and the harbour master, had already been appointed examiners, and that the application on behalf of the association must be declined. A representation was then addressed to the Mersey Docks and Harbour Board, urging that, independently of the fact of the gentlemen named as examiners being all in the service of the Board, very great dissatisfaction has existed since the passing of the Merchant Shipping Act, 1854, among the members of the service in the coasting trade, on account of the want of proper arrangements for the examination of masters and officers, and the obstacles which, notwithstanding every remonstrance, had been placed in the way of gentlemen desirous to obtain pilotage certificates; that any one named by the Council would bring to the assistance of the examiners an amount of practical knowledge gained from experience in trading to and from the port which could not fail to be of great value and service, and that the granting of the request would give to the masters and officers interested in obtaining pilotage certificates confidence in the examiners."

"The Dock Board having replied that it did not deem it expedient to add to the examiners, the Council has felt it to be its duty to lay the correspondence on the subject before the Board of Trade."

"The Council much regrets to have been obliged to take this course, but it feels that the examiners, having been appointed professedly to give satisfaction to the service, it was only fair that there should be upon it some gentleman at all events thoroughly conversant with the coasting steam trade; and that, as by the Merchant Shipping Act of 1854, the exclusive right of pilotage formerly enjoyed by the pilots was allowed, and the principle laid down that any master might pilot his own ship, care being taken that he possessed the necessary qualifications to insure the safety of life and property, it was also proper that the service, as a body, should be represented among the examiners."

No. 113.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 3,007.)

Sir, Trinity House, London, 12th March 1862.

I am directed to transmit, for the consideration of the Lords of the Committee of Privy Council for Trade, the accompanying copy of a memorial which has been received by the Elder Brethren, from the pilots licensed for the Milford district, setting forth that they have suffered considerable losses from the dishonest conduct of the masters of foreign vessels taking shelter therein, and also from the employment of unlicensed men on board vessels sailing from ports in the Bristol Channel putting into Milford Harbour; and I am directed to acquaint you, for their Lordships' information, that the Elder Brethren believe the representations made by the said pilots to be correct and well founded.

I have, &c.

P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Encl. in No. 113.

Copy of memorial from Pilots at Milford, complaining that their services are frequently refused by the Masters of Foreign Vessels.

Milford, 22nd February 1862.

To the Hon. Corporation of the Trinity Board.

The Memorial of the undersigned Branch Pilots licensed for Milford Haven.

Respectfully sheweth,

That your petitioners have for some years suffered considerable losses through the dishonest conduct of masters of foreign vessels (more particularly Austrian and French), who from stress of weather are glad to find refuge in this harbour, and have invariably a signal for a pilot hoisted, being anxious to receive our assistance, and they pay the inward pilotage without a murmur; but during their detention here they get such knowledge of the points of the harbour that when ready for sea they positively refuse to take our services outward, and such refusal is often accompanied by threats and violence.

Your petitioners further beg to call the attention of your Hon. Board to other cases to their great prejudice, mostly practised by American masters, who, on leaving a port in the Bristol Channel, generally employ hobblers out, and when driven into this port by adverse winds, with hobblers on board, they invariably refuse to take a pilot inwards, but do not refuse to take one outwards generally.

Your petitioners further beg to observe that this being a port of refuge only, they do not enjoy the same privileges as an importing port; and as the wind frequently comes fair in two or three days, they cannot avail themselves of the 363rd sect. by giving a summons of seven days, and hereby your petitioners are without redress.

Now your petitioners humbly pray your Hon. Board will be pleased to direct such measures to be enforced as will fairly protect them in their just claims.

And your petitioners will, in duty bound, ever pray, &c.

(Signed) Robert Phillips, No. 5. George Johns, No. 1.
William Johns, No. 3. John Lewis, No. 4.
Thos. Stephen Johns, No. 9. William Watkins, No. 7.
James Hancock, No. 8. James Eynon, No. 2.

No. 114.

Mr. Farrer to the Secretary, Trinity House.

(No. 3,007.) Marine Department, Board of Trade,
21st March 1862.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 12th, transmitting for the consideration of my Lords copy of a memorial addressed to the Trinity House by the pilots licensed for the Milford district, representing the injury they sustain from the dishonest conduct of masters of foreign vessels seeking refuge there, and also from the employment of unlicensed persons on board vessels putting into Milford from ports in the Bristol Channel.

I am to state to you in reply, for the information of the Elder Brethren, that the first grievance alluded to in the memorial, which amounts to a complaint that the obligation to employ a pilot cannot be enforced, does not appear to be one with which my Lords can interfere.

As regards the second ground of complaint, namely, that masters are in the habit of employing unqualified persons as pilots, I am to observe that in the opinion of my Lords the law as it stands affords a sufficient remedy for the grievance. The 360th section of the Merchant Shipping Act, 1854, enables a qualified pilot to supersede an unqualified pilot, and the 361st section subjects the unqualified pilot to a severe penalty if he continues in charge of a vessel after a qualified pilot has offered his services.

With regard to the third grievance, first, that the pilots cannot for the reasons stated avail themselves of the enactment in section 363 of the Act for enforcing payment of pilotage by masters of vessels seeking refuge, it appears to my Lords that the pilots have ground for complaint if, as they state, the recovery of pilotage cannot be enforced until seven days after the demand for payment has been made and refused.

There seems to be no reason why the law should not be summary in all cases where pilots have been employed, and the point is one which will receive consideration in any amendment of the present Act. But the amendment should, not in my Lords' opinion, extend to any cases except where pilots are actually employed.

My Lords do not quite understand the meaning of the difference between a port of refuge and a port of import alluded to in the memorial.

I am, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 115.

Mr. Humpherus to the Right Honourable the President of the Board of Trade.

(No. 3,070.) Watermen and Lightermen's Hall, London, E.C.

Sir, 13th March 1862.

I am directed by the Master and Wardens of the Company of Watermen and Lightermen to send you the enclosed petition of the Company on the subject of the Merchant Shipping Amendment Bill, and respectfully to request your kind consideration of the same.

I have &c.

To the Right Honourable the President of the Board of Trade. HENRY HUMPHERUS, Clerk.

Encl. in No. 115.

To the Right Honourable Thomas Milner Gibson, M.P., President of the Board of Trade.

The humble Petition of the Company of Watermen and Lightermen of the River Thames, Sheweth,

That by an Act passed in the 17th & 18th years of the reign of Her present Majesty Queen Victoria, c. 104, intituled "An Act to amend and consolidate the Laws relating to Merchant Shipping," it was amongst other things by clause 388 enacted "That no owner or master of any ship shall "be answerable to any person whatever for any loss or damage occasioned by the fault or incapacity "of any qualified pilot acting in charge of such ship within any district where the employment of such "pilot is compulsory by law."

That the attention of the Court of the Company has been called to a Bill about to be introduced into Parliament by your Honourable Board intituled "A Bill to amend the Merchant Shipping Act, 1854, the "Merchant Shipping Act 1855, and the Customs Consolidation Act, 1853."

That the Court of the Company have found that the provision above referred to as it affects the interests of the barge-owners of the River Thames is oppressive.

That barge-owners of the River Thames are compelled by the Act of 22 & 23 Victoria, c. 133, to employ licensed persons at all times in the navigation of their craft on the river, and notwithstanding the employment of such licensed persons such barge-owners are liable for all damage done by such barges whilst under the control of men so employed.

That shipowners who are compelled in like manner to employ licensed pilots to navigate their vessels are under the above clause exempt from liability for all damage done by their vessels whilst under charge of such pilots.

That such legislation appears inconsistent with a fair consideration of the relative interests of barge-owners and shipowners.

Your petitioners therefore humbly pray that you will take the above circumstances into your consideration; and that you will afford them such relief in making either the shipowners liable as in the case of the barge-owners, or requesting sureties from pilots, on their being licensed, in order to enable persons to recover damage done upon evidence shown; or such other relief as you may think the justice of the case deserves.

And your petitioners, as in duty bound, will ever pray, &c.

By the Court,

Henry Humpherus, Clerk.

No. 116.

Mr. Farrer to the Secretary, Trinity House.

(No. 2,537.) Marine Department, Board of Trade,

Sir, 6th March 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to enclose, for the information of the Elder Brethren, the accompanying copy of a report from the Receiver of Wreck at Lowestoft, and of a deposition taken before him respecting the loss of the Swedish vessel "Mathilda" on the 25th ult.

If the statements contained in those papers are correct, and if the pilot John Munnings referred to in the Receiver's report is a licensed pilot, it will be for the consideration of the Elder Brethren whether some inquiry should not be held into the subject.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 116.

Sir, Custom House, Lowestoft, 1st March 1862.

I beg leave to report the following shipwreck and loss of life, and submit whether my Lords may not see fit to cause an inquiry to made in relation thereto.

On the 25th ultimo, John Munnings, a licensed north sea pilot, floated with a number of beach men in a large yawl from the Lowestoft beach, in answer to a flag displayed by a Dutch vessel, which

on nearing, however, proved to be but a large vane; but in the distance they descried a brigantine with a flag at the fore-top-gallant-mast head. On closing with her found she was the Swedish vessel, "Mathilda," Hansen, master, from Marseilles to Great Yarmouth, with a cargo of oil seed cake. The master of the brigantine (she being then about five miles from land) inquired if they had a pilot in the boat, when they in the yawl answered, "We have not a Gat pilot," "We are not pilots, we are "fishermen, but can put a man on board to take the vessel to Yarmouth for 10*l.*," to this the captain demurred and offered 5*l.*, which they declined. On their being about to leave the master agreed to give them the 10*l.*, and a man was then put on board, the yawl returning to the beach.

At about 6 a.m. the following day, Samuel Mewse, the man who was put on board the "Mathilda" to pilot her to Yarmouth, landed in Lowestoft harbour with three of the crew of that vessel in her long boat, reporting that the vessel had become a wreck on Corton Sand, that the captain and some of the crew were left clinging to part of the wreck, and urging immediate assistance. The harbour master, Captain William Rivers, being at once apprised of this, was in prompt attendance with the Harbour Company's steam-tug "Powerful," and went from the harbour to the Roads, there awaited the launching of the life boat, which he at once took in tow, and after proceeding through the surf on the north part of the Holm Sand and the south part of Corton Sand, towed the lifeboat so far to windward as enabled her to be dropped down to the wreck, where they found the master and three seamen sitting astride, between the timbers of the vessel, which was a complete wreck, the sea beating so heavily over them as to render them at times invisible.

Having secured these in the lifeboat, it was then ascertained that the mate and an English seaman, named Robert Smith, said to belong to Yarmouth, Isle of Wight, who had shipped at Marseilles, had been drowned. When the vessel broke up the lifeboat was again taken in tow by the tug and brought into the harbour, arriving there about 8 a.m.; the master and surviving crew of the "Mathilda" being placed under the care of the Swedish Consul, Mr. G. S. Gawing, who instantly had their wants attended to.

I am, &c.

T. H. Farrer, Esq. JOHN ROBERTSON, Receiver.

No. 117.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE

(No. 3,324.)

SIR, Trinity House, London, E.C., 19th March 1862.

HAVING laid before the Elder Brethren your letter of the 6th instant, transmitting by direction of the Lords of the Committee of Privy Council for Trade, copy of a report made by the Receiver of Wreck at Lowestoft, and of a deposition made by the master of the Swedish vessel "Mathilda," in relation to the loss of that vessel on the 25th ultimo, I have to acquaint you, that on receipt of your communication, John Munnings the London North Channel pilot referred to therein, was called upon to state the circumstances under which he spoke the vessel in question, and his reason for not taking charge of her, and I am now directed to forward to you for their Lordships' information a copy of Munnings' statement together with a copy of a memorial which has been addressed to the Elder Brethren by certain of the pilots licensed for the Yarmouth Gatways.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

Enclosure 1 in No. 117.

(Copy.)

To the Honourable Corporation of Trinity House, London.

Lowestoft, 11th March 1862.

I MOST humbly beg to inform your Honourable Board that I have this day been instructed by Mr. Wm. Davie, Trinity agent at Yarmouth, to make a statement and send to him to be forwarded to your most Honourable Board, respecting the loss of the Swedish brig "Mathilda," bound for Yarmouth, which I beg to inform you the following is a true and correct one.

That on the 25th day of February last, at 1 30 P.M., being on the look out, I saw a vessel in the offing making towards the land, which I thought had a flag flying for a pilot. I therefore at once proceeded to the beach and asked the boatmen if they would launch a yawl and take me off to the vessel, the wind being at that time about E. b. N., a fresh breeze, and clear weather. The men then mustered crew and launched the yawl called the "Greyhound," and set single reef foresail and mizen, and proceeded off to sea; but as we approached the vessel, the supposed flag proved to be only a large vane, but as we were going off, we saw another vessel displaying a flag for a pilot coming in from an E.S.E. direction, towards the shore, which we at once made for, and on nearing her, found her to be a Swedish brig, being then about two miles E.S.E. from the shoalest part of the Holm Land, and steering direct towards it, it being then about 3 P.M. I at once took my flag and wove to him to lay the vessel's head to sea. The captain observed my signal; he immediately wore the vessel with her head off; we then came up to the said vessel and hailed her to know where she was bound to, and the answer was

"Yarmouth," and not being alongside of the vessel, I called out to the captain that we had no pilot in the boat for Yarmouth, only London; and, as my licence which your most Honourable Board has granted me, does not authorize me to take charge of vessels bound to Yarmouth, and expecting to see a gat pilot come off, the vessel being close at the back of the sands and knowing they were all of them on shore at Lowestoft, when I went off; as we were about to leave the said vessel the captain wove us back; I then told the men in the yawl to go alongside of the said vessel, and I would go on board and take charge of the vessel until a gat pilot came off, and the reply to me was, "We shall not go alongside "of the vessel to put you there as you are not authorized, and the gat pilots would come off and turn "you out, as we shall get little or nothing for our trouble, and if any one goes on board from this boat, "one of us will go, not you; now mind that before we go alongside, for we won't run the risk of "knocking our boat to pieces for nothing," there being at that time 23 hands in the boat.

They then went within hail of the vessel again, and asked the captain if he would take a fisherman, and how much money he would give, and the captain's answer was, "A fisherman is all the same as a "pilot to me, how much money do you want?" and the boatmen's answer was, 10*l.* The captain called out "I will give you 5*l*;" the boatmen told him "they would not go alongside to risk their "boat for that; if you will give us 10*l.* you shall have a man, if not, we shall go away," but after a few minutes, the captain said, "Come on board." They then put the yawl alongside, and one man got on board, and we immediately left the vessel with a flag still flying for a gat pilot, as I had told the boatmen, "If you won't let me go, keep the flag flying." The said vessel stood off to sea, and we proceeded to Lowestoft, where we arrived on the beach at 4 30 P.M. same day.

I most humbly beg to inform your Honourable Board that none of the Lowestoft and Yarmouth north-sea pilots have taken charge of vessels bound to Yarmouth or Lowestoft since 1856, as they have informed me before and since the previous date. If I have acted wrong in any shape whatever, I am quite innocent, and beg pardon of the most Honourable Board, and shall be glad to receive instructions from them as to how I must act for the future on similar occasions.

Yours, &c.
JOHN MUNNINGS.

We, the undersigned boatmen, declare the above statement to be correct, being in the boat at the time.

RICHARD BUTCHER, his × mark.
JAMES CLARKE.
MATTHEW COLEMAN.
JOHN FLETCHER, his + mark.

Witness,
ISAIAH TANSLEY.

Enclosure 2 in No. 117.

(Copy.)

To the Honourable the Elder Brethren of the Corporation of the Trinity House of Deptford Strond.

The humble Memorial of the undersigned licensed Pilots,

Sheweth,

THAT your memorialists are duly licensed pilots for Lowestoft Roads and Yarmouth Roads and gattways.

That the present rate for piloting vessels through the several gatways leading into Lowestoft Roads and Yarmouth Roads is four shillings per foot inwards, (eleven feet being the minimum,) and two shillings and sixpence per foot outwards.

That such rates of pilotage are found by experience to be quite inadequate.

That the vessels piloted by your memorialists are seldom more than 15 feet draft of water, and an average may be taken of 13 feet only.

That the pilotage inwards of such a vessel is 2*l.* 12*s.*, and outwards 1*l.* 12*s.* 6*d.*, making 4*l.* 4*s.* 6*d.*, out of which there has to be deducted sixpence a-piece for the men in the boat, the average number being twelve, which will amount to 6*s.*, the shore boat to put them on shore again, (the other boat having left them on board,) is 2*s.* Expenses returning home, 5*s.*, and sixpence in the pound paid to your Honourable Corporation, 2*s.*, amounting together to 15*s.*, which deducted from the 4*l.* 4*s.* 6*d.*, the amount of pilotage, leaves 3*l.* 9*s.* 6*d.* of which one-half, or 1*l.* 14*s.* 9*d.*, goes to the pilot, and 1*l.* 14*s.* 9*d.* to the company of men launching the boat.

That when the pilotage is inwards only, the amount to be divided is proportionately less, and when the pilot outwards is put on shore at Winterton, he is compelled to pay 10*s.* for boat hire.

That the amount ultimately received by the pilots, is an inadequate remuneration for the services rendered by them, and they are therefore unable to keep sufficient boats of their own to go off in, especially in bad weather.

That they are unable to allow the boatmen for putting them off, more than one-half of the net proceeds as above stated, with which the boatmen are much dissatisfied, as it frequently happens that from 30 to 40 men, in bad weather, are necessarily employed in launching a boat from a flat beach, so that the amount to be divided amongst them comes to so little as to be quite inadequate.

That in consequence of this, the boatmen, especially in bad weather, when the services of a pilot are most required, have frequently altogether refused to take off a pilot, and therefore pilots, in such cases, have been unable to proceed to vessels requiring their services.

That within the last fortnight, two vessels have been lost on the Corton sand, previously to which each vessel had a jack flying for a pilot, but no pilot could go off in consequence of the boatmen refusing to take them.

That a boat did go off to one of these vessels, and for an agreed sum of 10*l.* put an unlicensed person on board, who undertook to pilot the vessel into Yarmouth Roads, and such vessel was totally lost with two lives.

That your memorialists firmly believe, that had a duly licensed pilot been on board, each vessel would have been saved.

That your memorialists fear that many vessels and much property will be lost, and numerous valuable lives sacrificed if the amount of pilotage be not raised so as to afford a sufficient remuneration to the parties employed.

Your memorialists therefore humbly pray that your Honourable Corporation will take the above facts into your serious consideration, and afford them such relief as you may think fit.

Barzillai Thompson.
James Barnes Swan.
Thomas Ellis.
Stephen Steel.
Benjamin King, his + mark.

Gt. Yarmouth, March 10, 1862.

No. 118.

Mr. Farrer to the Secretary, Trinity House.

(No. 3,324.) Marine Department, Board of Trade,
28th March 1862.

Sir,

With reference to your letter of the 19th instant (in reply to their Lordships' letter of the 6th inst.) inclosing a copy of a statement made by John Munnings, the London North Channel pilot, referred to in the deposition of the master of the Swedish vessel "Mathilda," as well as a copy of a memorial to the Elder Brethren from certain pilots licensed for the Yarmouth Gatways relative to the alleged inadequacy of the present pilotage rates, I am directed by the Lords of the Committee of Privy Council for Trade to request the Elder Brethren to be good enough to inform their Lordships whether they consider Munnings' statement to be correct that his licence did not authorize him to pilot vessels into Yarmouth Roads.

With respect to an increase of the pilotage rates desired by the memorialists, I am to state that the question of raising pilotage rates will be met by the Merchant Shipping Act Amendment Bill now before Parliament, a copy of which I am to enclose for the information of the Elder Brethren.

I am, &c.
T. H. FARRER.

The Secretary, Trinity House.

No. 119.

The Secretary, Trinity House, to the Secretary, Marine Department, Board of Trade.

(No. 4,234.) Trinity House, London, E.C.,
9th April 1862.

Sir,

Having laid before the Elder Brethren your letter of the 28th ult., signifying the request of the Lords of the Committee of Privy Council for Trade to be informed whether the Elder Brethren consider the statement made by Mr. Munnings, in relation to his not taking charge of the Swedish vessel "Mathilda," "that his licence did not authorize "him to pilot vessels into Yarmouth Roads," is correct, I am directed to acquaint you for the information of their Lordships that the statement of the said pilot is correct, and that his licence does not authorize him "to take charge of vessels bound to Yarmouth," and that even had he not been prevented from going on board the vessel in question, and had taken charge of her, any Gatway pilot coming on board might have superseded him.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

No. 120.

Mr. Farrer to the Secretary, Trinity House.

(No. 3,350.) Marine Department, Board of Trade,
28th March 1862.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Elder Brethren of the Trinity House, the accompanying copy of a letter from Mr. C. R. Tatham representing the necessity for an alteration of the laws concerning pilotage.

My Lords desire particularly to call the attention of the Elder Brethren to the cases alleged by Mr. Tatham, from which it would appear that masters of vessels who have

passed through the Downs without any pilot having offered his services, are liable to be summoned for payment of double pilotage.

My Lords are of opinion that if any conviction of a master under the circumstances mentioned by Mr. Tatham has taken place, the matter should be inquired into, and they have requested Mr. Tatham to furnish the particulars of the cases referred to in his letter.

In the meantime my Lords will be glad to receive any observation the Elder Brethren may desire to make on the complaint.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 120.

DEAR SIR, 35, Pudding Lane, London, E.C., 18th March.

As a member of the Royal Thames Yacht Club, a shipowner, and shipbroker, I venture to address you on the subject of pilotage.

That there is great alteration required in the Downs and London pilotage there is no doubt, but there are many conflicting interests. The large ships average one voyage a year, the small ones about five. I have a large number of fruit schooners, and you well know how easily they are handled to a large lumbering vessel not drawing any more water than they do; one is a pleasure to handle the other a task with great risk. Though both will draw about the same water, some of the schooners as much as thirteen feet, their pilotage up only is 13*l.* 4*s.*, and if steam is taken a very slight reduction is made, and the pilots making the tug people refund the reduction or object to employ them again, if they can possibly get one that does, and most of them do; for these vessels payment according to tonnage would be the fairest system. The pilotage on the vessels is exceedingly heavy, and in the course of a year it amounts to a large sum. I am informed the pilots are quite willing to have a large reduction made, but are afraid to begin to make any concession.

The system of pilotage in the Downs wants a great alteration, the pilots ought nearly all to be in cutters like those at Liverpool; it is very hard for a smart vessel to pass Dungeness without seeing the pilot cutter, and if seen by any boatman, he goes on shore at Deal, calls the first pilot, who may be in bed, the vessel in the meantime being beyond Margate; but in this case a letter comes demanding pilotage, which if not paid, double pilotage is demanded, and the master is sometimes taken into custody, sent to Deal and convicted with all costs. In one case we had a master summoned to Dover, where they saw or heard of the vessel passing; he had to pay double pilotage and costs, and pilotage from Deal as well.

Hoping you will excuse this long letter, for I fear to take up your valuable time.

Believe me, &c.

To the Right Hon. T. Milner Gibson, President of the Board of Trade. C. R. TATHAM.

No. 121.

MR. FARRER to MR. TATHAM.

(No. 3,350.) Marine Department, Board of Trade,

SIR, 29th March 1862.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 18th instant, representing the necessity for an alteration in the law concerning pilotage, and pointing out in the case of small vessels, the unfairness of the system of charging pilotage according to the draft of water, and not according to tonnage, and also state that shipowners are subjected to hardship from their masters being liable to be summoned to Dover or elsewhere for evasion of pilotage, when it has happened that no pilot offered or was seen by the master.

As regards the latter point, my Lords will thank you to favour them with the particulars of the cases referred to in your letter.

I have, &c.

C. R. Tatham, Esq., 35, Pudding Lane, E.C. T. H. FARRER.

No. 122.

MR. C. TATHAM to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 3,863.)

SIR, 35, Pudding Lane, London, 1st April 1862.

I AM in receipt of your favour of 29th ultimo (3,350), respecting the law concerning pilotage, and enclose you a petition to the Trinity Board, and answer respecting two sums of money 9*l.* 6*s.* Deal, and 24*l.* 13*s.*, together 33*l.* 19*s.*, which Captain Dugdale of the schooner "Billow" was made to pay without having the services of a pilot.

This is a very hard case, and an alteration is wanted, for although it is seldom any vessel has had to pay their pilotage, it has often occurred that pilotage has been demanded from Deal, entirely owing to vessels not hoisting a jack, and they have to pay although no pilot has been near them, and the report of boatmen has been the evidence they have gone upon.

Feeling sure this will be now remedied.

I am, &c.

The Secretary, Marine Department,
Board of Trade.

C. TATHAM.

Enclosure 1 in No. 122.

Sir, Trinity House, London, 20th June 1860.

Having laid before the Board your memorial praying that the money you have paid in respect of an offence against the pilotage laws may be returned to you, or such other redress may be afforded as may be deemed just; I am directed to acquaint you that the Elder Brethren, having taken all the circumstances of this case into consideration, are unable to assist you in recovering the amount which you have paid.

I am, &c.

Mr. W. H. Dugdale, care of
Messrs. Landor and Buckle, 25, Eastcheap.

P. H. Berthon.

Enclosure 2 in No. 122.

To the Corporation of Trinity House, London.

The humble Memorial of the undersigned William Henry Dugdale, Captain of the schooner "Billow," Sheweth,

That I am master of the schooner "Billow," and was on the tenth day of May instant on my homeward voyage from Nassau to London laden with turtle and other goods.

That in passing through the Downs from Dungeness to Deal I own that I failed to display the usual signal for a pilot.

That I was in the act of doing so when a small tug-boat spoke me and asked where I was from, I replied from Nassau, and that I wanted a pilot. A foreign brig was also coming through the Downs and the pilot on board of her spoke me and said he should report me for not having the jack flying.

That on the fifteenth of May instant I was applied to by Mr. Edward Drew, a solicitor, at Deal, on behalf of William Mackie, one of the pilots of your Honourable House, and was required to pay double pilotage under section 378 of the Merchant Shipping Act for not displaying a jack, and I was afterwards informed by Mr. Drew that a warrant was prepared and would be executed unless I would remit to him the sum of nine pounds twelve shillings and sixpence by way of compromise of the matter.

That I thereupon applied to your Honourable House and was informed that I had better pay the amount, whereupon I immediately caused the sum of nine pounds six shillings to be remitted to Mr. Drew, whose acknowledgment I hold for the same, stating that he has paid it to Mr. Mackie.

That immediately after the above payment was made I was arrested in London from a process issued from Dover, and was thence conveyed to Dover to answer a charge of not displaying a jack.

That when before the magistrates at Dover I mentioned that I had already paid a penalty for that offence of nine pounds six shillings, but the magistrates refused to take notice of the same, and convicted me in a penalty of nineteen pounds thirteen shillings, and five pounds costs, (making altogether 24*l.* 13*s.*,) and I had no alternative but to pay the same or go to prison, and I accordingly there and then paid or caused to be paid the said sum of 24*l.* 13*s.*

That in consequence thereof I have caused application to be made to Mr. Drew for a return of the said sum of nine pounds six shillings so paid by me as aforesaid, but the same has not yet been returned to me.

That I positively declare that no pilot was at any time between Dungeness and Deal offered to me, and I consequently never directly or indirectly refused to take one on board and to give the charge of my said vessel to a pilot, but on the contrary, I state that I was in want of one, was looking out for one, and was expecting to find one off Dover or the South Foreland, and my only departure from the law was in failing to display a signal until I had passed the South Foreland.

That having committed only one offence I respectfully submit that only one penalty can legally be enforced.

Your memorialist, therefore, most humbly prays that under the circumstances above stated your Honourable House will be pleased to take my case into your favourable consideration, and to obtain for me a return of the money I have so paid as before stated, or such other redress as you may deem just or the case may require.

W. H. Dugdale.

I, the undersigned George Romeril, mate of the schooner "Billow" (on her voyage from Nassau to London) do hereby certify and declare that I have heard read the foregoing memorial of Captain Dugdale, and the same is (as regards no pilot offering and the not taking one on board) correct in all respects to my own knowledge.

G. Romeril.

Dated the 31st day of May 1860.

No. 123.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 4,509.) Trinity House, London, E.C.

Sir, 16th April 1862.

Having laid before the Elder Brethren your letter of the 9th inst., transmitting by direction of the Lords of the Committee of Privy Council for Trade, copy of one, with its enclosures, which their Lordships have received from Mr. Tatham, in relation to proceedings which had been taken against Mr. Dugdall, master of the schooner "Billow," for evading a pilot's services, and signifying the request of their Lordships to be favoured with any observations which the Elder Brethren may have to offer on the case, I am directed to forward to you, for their Lordships' information, copies of statements which were received in the month of June 1860, when this case was under the consideration of the Elder Brethren. I am also directed to acquaint you, for their Lordships' information, that the statement made by Mr. Dugdale "that he was informed by the Corporation that he had better pay the amount of 9*l.* 6*s.*," is incorrect, no such advice having been given him at this House.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

Enclosure 1 in No. 123.

Copy of a Letter from Captain Noble, Superintendent of Pilots at the Cinque Ports, relative to the affair of the "Billow."

Sir, Dover, 14th June 1860.

The absence of Mr. W. B. Mackie, Deal pilot, has caused the delay in returning the memorial of Mr. Dugdale, master of the "Billow." I have the honour to forward, for the information of the Board, Mr. Mackie's statement, and a report of the trial before the Magistrates for the county of Kent. I have seen Mr. Trott, who states the "Billow" was close to the pilot cutter, without a jack. When he was shipped in the brig, the "Billow" kept company as far as the Girdler and spoke him three times. Off the Brake, Mr. Trott informed the master of the "Billow" he should prosecute him under the clause in the Act, and Mr. Trott on his return to the station informed me of his intention. I was not aware any compromise had taken place at Deal.

I remain, &c.

To P. H. Berthon, Esq. J. W. Noble, Superintendent of Pilots, Cinque Ports.

Encl. 2 in No. 123.

Copy of letter from W. Mackie, Pilot, to Captain Noble, Superintendent at the Cinque Ports, relative to the affair of the "Billow."

Sir, Deal, 14th June 1860.

I beg to give you particulars of the schooner "Billow." On the afternoon of May 10, at 4 p.m., I was on the look-out and saw a schooner coming in; and when at the Brake buoy he hoisted a jack. Then he was out of reach of a pilot. I then went to Lloyd's boat that had been alongside of him, and they had told the captain to hoist his jack, then a pilot could come off to him, but he told them he should not; the men in the boat told him they should report him to the pilot, which they did. I then wrote to Mr. Finnis, the senior pilot at Margate, and asked him if the "Billow" had a pilot at Margate. He wrote to say, No. I then went to Mr. Wood to see the captain to know why he did not hoist his jack for a pilot when he passed through the Downs at 4 p.m. on the 10th, but he could make nothing of him when he asked him for the single pilotage.

I then went to Mr. Drew, the solicitor at Deal, to write to him, and in a few days the captain sent the single pilotage to me. I did not know that anything had taken place with Mr. Trott and the captain of the "Billow" until I had received the single pilotage.

I have been in the cutter since the 6th, or I should have answered your letter before.

I am, &c.

William Mackie.

Encl. 3 in No. 123.

Saturday.—County Police Court.—Before E. Foss and S. Finnis, Esq.

Artful Dodging.—Mr. Stillwell appeared on behalf of Mr. Trott, one of the Trinity House pilots of this port, to ask their Worships to issue a warrant against the master of a vessel called the "Billow" for neglecting to signal for a pilot on passing up the channel on the 10th inst. From the statements of Mr. Stillwell it appeared to be the practice of certain masters to evade, if possible, the law requiring them to have on board a pilot whilst navigating the more intricate parts of the channel,

nd it further seemed from the statement of Mr. Trott, who was in attendance to speak to the facts, hat in this case the master of the vessel (Dugdale by name) had not only abstained from taking a ilot, but had adroitly slipped in at the stern of a vessel which had a regular pilot on board and passed hrough the channel, availing himself of the nautical skill for which his brother skipper had had to pay. The magistrates granted the warrant.

Tuesday.—Before E. Foss and S. Finnis, Esq.

The Charge of evading Pilotage. Important to Shipping Masters.

William Henry Dugdale, master of the schooner "Billow," of Brixham, against whom a warrant vas issued on Saturday last, was brought up for evading pilotage by neglecting to display the usual ignal in compliance with the provisions of the 378th section of the Merchant Shipping Act, on passing p the channel on the 10th inst.

Mr. Stillwell appeared in support of the prosecution, and Mr. Minter for the defendant.

Mr. Arthur Trott examined.

I am a licensed Trinity House pilot, and on the morning of the 10th inst. was on board the Dover ilot cutter, which was then off Dymchurch. I saw a schooner coming up channel. She had no ignal for a pilot flying. She was inside the cutter, which reached in towards her. I afterwards scertained the name of the schooner to be the "Billow," and that she belonged to Brixham. She vas a large schooner with a plain white streak on a moulding running round her. Shortly after atching sight of her I saw a brig approaching. The brig had a signal for a pilot flying. It was my uty to answer that signal, and I according went on board and piloted her to the Downs. From the me of going on board to getting into the Downs the schooner kept abeam of me, and about a cable's ength off. In the Downs she came within hailing distance, when the Captain asked me why he could ot get a pilot? I answered that if he had signalled he would have had me. I then asked him where e came from, and he told me he came from Nassau and was bound to London. I was very close, nd have no doubt that the defendant was the person in command of the schooner. He had no flag lying then. The draught of the schooner is about eleven or twelve feet.

Cross-examined by Mr. Minter.

It was not foggy on the 10th except very early in the morning. I first saw a flag on the schooner fter I had told him to hoist it at the Brake buoy. There would then have been time for a pilot o be shipped from Margate or Ramsgate if the schooner had stopped, but she did not stop. The ind was fresh.

By the Bench.

The schooner did not drop her anchor till within nine miles of Gravesend.

By Mr. Minter.

I know there is a Mr. Mackie, a pilot of Deal.

Mr. W. Charrison. I am a Trinity House pilot stationed at Dover. I was on duty on the morning f the 10th May at the pilot house, and was called to go to a barque in the channel that had a ignal flying for a pilot. I put off in a boat from the shore and as I was being taken to the barque I assed a schooner answering the description of a fruit vessel, with a narrow white streak or moulding ound her. She had no signal for a pilot flying. This was a little before two in the afternoon. I hink I observed a brig just outside her, but of this I am not certain.

Mr. Trott recalled.

I was off Dover in the brig about a quarter to two.

Henry McKean. I am a boatman residing in Dover. I took Mr. Charrison off to a barque that vas coming up the channel between half-past one and two o'clock on the afternoon of the 10th. As s I was going from the shore to the barque I saw a schooner. My boat passed close to her. She ad a white moulding. She had no pilot flag flying. If she had I should have noticed it and gone to er. I saw a brig outside her with a flag flying which indicated that she had a pilot on board. She ooked like a foreign brig. I had looked at her through a spy-glass. I had looked at the schooner oo, but had not observed her make any signal for a pilot.

By Mr. Minter.

It is the practice for vessels coming up channel to hoist signals for pilots when off Dungeness.

Mr. Miller, for the defendant, said he should not attempt to deny that the master of the "Billow" eglected to hoist a flag for a pilot till about four o'clock in the afternoon of the day in question, and ot, in fact, till getting off the Downs. He was instructed, however, that it was not usual for shipping asters to display signals of this kind till arriving off Dover. But for this offence the present defendant ad already been made to suffer, having had to pay the pilotage from Deal, and other charges, to stop a roceeding similar to this which had been threatened by Mr. Drew, the town clerk of Deal, acting or one of the Deal pilots, Mr. Mackie. Mr. Minter then read letters which his client had received rom Mr. Drew in proof of this statement.

The Bench decided that this was no answer to the present information.

Mr. Minter submitted that it ought to be so regarded unless the Magistrates held that the defendant vas liable to two or three prosecutions for the same offence.

The Bench intimated that they were not deciding anything of the sort. The correspondence vith Mr. Drew did not affect the question now before them. If there had been a conviction he case would have been altered, and the Magistrates then would not have interfered; but there ad not.

Mr. Minter then applied for an adjournment of the summons, but this was opposed by Mr. Stillwell, and ultimately refused by the Bench, who held that the proper time for asking for an adjournment would have been before the case for the prosecution had been opened.

The penalty provided by the Merchant Shipping Act for this offence was a fine of double the pilotage, which it appeared on reference to Mr. Trott, was 9*l.* 16*s.* 6*d.*, viz., 2*l.* 14*s.* shipping money and pilotage to the Downs, and 7*l.* 2*s.* 6*d.* pilotage from the Downs to London. The defendant was therefore fined 19*l.* 13*s.* and the costs, making a total of 24*l.* 10*s.*, which he declined to pay.

A warrant for his committal to prison was thereupon made out and placed in the hands of the proper officer. In default the penalty is three months imprisonment.

No. 124.

Mr Farrer to the Secretary, Trinity House.

(No. 4,509.) Marine Department, Board of Trade,

Sir, 22nd April 1862.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 16th inst., inclosing a statement of the facts of the case of the schooner "Billow," referred to the Elder Brethren by my letter of the 9th inst. It appears to my Lords that the master of the "Billow" was compelled in respect of one and the same offence to pay a fine of 24*l.* 10*s.*, and also to pay pilotage to the Deal pilot. If this is the case my Lords would be glad to be favoured with the opinion of the Elder Brethren upon the merits of the case, and should they be of opinion that the double demand was not just, to know whether any steps were taken to procure the return of any part of the money.

I have, &c.

To Secretary of Trinity House. T. H. FARRER.

No. 125.

Mr. Berthon to Mr. Farrer.

(No. 5,048.)

Sir, Trinity House, London, E.C., 30th April 1862.

Having brought under the consideration of the Elder Brethren, your letter of the 22nd instant, further on the subject of the proceedings against the master of the schooner "Billow," I am directed to state in reply that they had been induced to hope that the documents already forwarded relating to that case would have satisfied their Lordships that, whatever inconvenience the master of that vessel has suffered, and the penalties imposed on him by judicial authority, however severe they may have been, were wholly attributable to his own misconduct in knowingly evading and wilfully breaking the law.

The Elder Brethren do not consider it to be their province to express an opinion on the merits of a case, which has already been decided by legal or magisterial authority, neither is there any power vested in them as a Corporation, to remit or modify any penalties which may have been so imposed.

The Elder Brethren desire also to observe they have been credibly informed that the master of the "Billow" had for a long period been in the habit of systematically evading the employment of the pilots, and of following in the track of vessels entering the river, thereby availing himself gratuitously of the services of the pilot in the vessel ahead of him.

I have, &c.

T. H. Farrer, Esq. P. H. BERTHON.
Board of Trade.

No. 126.

Mr. Farrer to the Secretary, Trinity House.

(No. 2,931.) Marine Department, Board of Trade,

Sir, 18th March 1859.

I am directed by the Lords of the Committee of Privy Council for Trade t transmit to you, to be laid before the Elder Brethren of the Trinity House, the accom panying copy of a letter from the Secretary of the Woolwich Steam-Packet Company wit

ts enclosures, relative to the rejection by the Sub-Commissioners of Pilotage at Ipswich f Mr. H. Forss, one of the Company's masters, who had gone up for examination for a ilotage certificate.

The case as stated appears to be a hard one, and my Lords would be glad to know hat steps the Elder Brethren think it right to take.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 126.

IR, Roff's Wharf, Woolwich, 12th March 1859.

I AM instructed by the Directors of the Woolwich Steam Packet Company, limited, to forward you the enclosed letter, which they have received from Mr. Forss, the captain of one of their ackets appointed to ply on the London and Ipswich trade, a copy of a letter addressed by him n the 7th instant to Mr. Adley, the chairman of the Board of Sub-Commissioners for Pilotage at pswich, and a letter he received from Mr. Adley in reply. With reference to part 5, clause 342 of he Merchant Shipping Act, relating to pilotage of vessels by masters and mates, and believing the atements contained in Mr. Forss' letter to be substantially correct, also knowing him to be a most kilful navigator, a most experienced and able commander of river and coasting steamers, in which apacity he has served on the London, Gravesend, Southend, Sheerness, Margate, Ramsgate, and oulogne stations continuously since the year 1835, with great credit to himself, the Directors of his Company respectfully beg to request that you will cause such inquiries to be made into this case s may be deemed necessary, and give directions that Mr. Forss may be examined by some qualified ut disinterested person or persons (if possible not Ipswich men), as it appears from all the informa- on they can obtain, that no person excepting one of their own townsmen will be allowed to pass as ilot for the River Orwell, however well qualified to do so, which opinion appears fully borne out by he enclosed letter from Mr. Adley, refusing Mr. Forss the information requested by him respecting he "thwart marks," and making the absurd allusion to want of experience of a person of his anding and knowledge of that, as he so justly states, "harmless river." The steamer of which Ir. Forss is the commander, draws but 4 feet water, and the "Orwell," which vessel he commanded st season on that station, and in which he made 60 passages up and down, drew fully 6 feet.

The Directors therefore confidently leave this case, which they believe to be an attempt to uphold gross monoply of the pilotage of that river, in your hands, feeling assured that by this means, mple justice will be afforded to them, and to their captain, Mr. Forss, who will at any time attend he Honourable Board of Trade, or any parties deputed by them, to render any further information, to undergo any examination they may deem desirable.

I have, &c.

To the Secretary of the Board of Trade. F. GIDDINGS, Secretary.

Sub-Enclosure 1 in No. 126.

IR, 71, Gt. George Street, Bermondsey, 7th March 1859.

HAVING reason to believe that the cause of my rejection for a master's certificate of pilotage r the River Orwell, at the examination held on the 2nd instant before the Sub-Commissioners at pswich, was owing to my not being acquainted with the thwart marks for the several points, and hich are not shown on any chart that I can see, and which I find upon inquiry are not obtainable om any private source, may I respectfully request that you will be so good as to cause me to be pplied with those marks at your earliest possible convenience, in order that I may pass the necessary xamination, and I shall be greatly obliged.

I am, &c.

To John Adley, Esq. H. FORSS.

Sub-Enclosure 2 in No. 126.

IR, Custom House, Ipswich, 8th March 1859.

IN reply to yours of yesterday, I beg to state that you must excuse my declining to comply ith your request, as it would be unprecedented, and would not add to your practical knowledge.

I am, &c.

Mr. Forss. JNO. ADLEY.

Sub-Enclosure 3 in No. 126.

ENTLEMEN, 9th March 1859.

I AM very sorry to inform you that my endeavours to obtain a pilotage certificate for the iver Orwell have been unsuccessful, the particulars of which I respectfully beg leave to state.

According to your request, I applied to the Sub-Commissioners of Pilotage at Ipswich for a cer- ficate of pilotage, and on the 2nd of February last, I underwent an examination before them, when ey considered it proper to defer granting the certificate, on the ground that some of my leading arks were incorrect, and that I might make myself further acquainted with them. I accordingly efully directed my attention, and employed considerable time on the river for that express purpose. hat on the 2nd day of March inst., I was again examined before the said Commissioners, when the ertificate was again refused because some other marks, called "thwart marks," had not been given.

I therefore, gentlemen, feel bound to express my full belief that my certificate is unfairly and unjustly withheld from me, through the opposition of some one or more of the pilots of the port, from the fact that one of them attends at the examination, and also that no allusion to "thwart marks" were made on my previous examination, nor can I find them marked down on any chart of the river that I have seen; and also that during the examination, the examiner referred to what appeared to be some new marks on a clean note paper.

I further beg leave to say that I have endeavoured to obtain the said "thwart marks," by applying by letter to Mr. Adley, the chairman of the Board, but that gentleman in his reply (which with my application I beg to enclose,) declines the favour, on the ground that there was no precedent for his complying with my request, and that they would not add to my practical knowledge.

Now, with respect to the latter remark, gentlemen, I beg to say that I have he fullest confidence in my practical knowledge of that harmless river of twelve miles, having been, while in command of the "Orwell" last summer, up and down that river daily for 60 days, not to speak of the time that I have lately employed to perfect myself; and moreover, there are numerous buoys placed on each side of the narrowest part of the river, so that a boy of any intelligence might find his way after a dozen trips up and down. I must here beg to add that I have been informed confidentially, that all my leading marks were correct.

I am, &c.

To the Directors of the Woolwich Steam Packet Company. H. Forss.

No. 127.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 3,826.)

Sir, Trinity House, London, E.C., 6th April 1859.

Having brought under the notice of the Elder Brethren your letter of the 18th ult., transmitting, by direction of the Lords of the Committee of Privy Council for Trade, a letter from the Secretary of the Woolwich Steam Packet Company, with its enclosures, relative to the examination of one of that Company's masters for a pilotage certificate for the Ipswich district;

I am directed to forward to you, for their Lordships' information, the accompanying copy of a report on this subject, which has been received from the Sub-Commissioners of Pilotage for the said district.

I have, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

Enclosure in No. 127.

Sir, Ipswich, 30th March 1859.

In reply to yours of 22nd inst., we beg to state that Mr. Forss' attendances were as named by him. Our observations are as follows, viz.:—

First Examination.

The causes of his rejection were not wholly stated to him, as he was found very imperfect, not only in his leading marks, but in other matters (the particulars of one reach were altogether unknown), and the examination was, therefore, not continued. He was informed that any conspicuous marks would be admitted in lieu of the established ones, if the facts could be ascertained, and the superintendent of pilots always attends, that, if necessary, we may have reference to him, further than that he has not the power of opposition insinuated by Mr. Forss.

Second Examination.

Mr. Forss had improved his knowledge, but was considered too deficient to be trusted with the lives of passengers. One of the causes of his rejection was his not knowing, as he states, the "thwart marks," that in case (which often happens) any of the buoys were missing, he might know when he came to a point or shoal in the river. No "note paper" of new marks was referred to, but only some notes of his first examination. Notwithstanding a few offensive insinuations (which he now deliberately repeats, and has caused the secretary to enlarge upon), he was told that if he chose further to qualify himself another meeting for him would be held.

As to the other parts of Mr. Forss' letter we must state that, so far from this being a "harmless river of 12 miles," it is generally considered a difficult one, and that during the two months that he was in command of the "Orwell" a pilot was always employed, and that he was generally below getting either his breakfast or tea. We must remark that if, as he states, the knowledge is obtainable by a "boy" after "a dozen trips," his two months ought not have left him so unqualified as we found him to be.

Mr. Forss' statement of his "confidential" information cannot be correct, as there was nothing in confidence, and, therefore, must have been created by some one not there.

The cause of Mr. Adley's reply was the following, viz., the course of and the marks in the river were several times examined, and a chart was drawn, and each Sub-Commissioner, at his own expense,

had a copy. All the marks, buoys, &c., are there shown, and on a separate paper they are explained in detail. In autumn last, Mr. Moore, who was in charge of the "Orwell" prior to Mr. Forss, called at Mr. Adley's office, during his absence from town, and falsely told his clerk that Mr. Adley had promised to let him see a chart and directions, which were kept in a certain drawer (whence Mr. Moore is supposed to have seen Mr. Adley take them); the clerk, therefore, allowed him, alone in Mr. Adley's Office, the use of them, and from which, by copying, he surreptitiously obtained much of the information, and Mr. Forss, on being questioned, owned that he got it from Mr. Moore. Thus a portion of the examination was rendered useless, as the answers had been obtained from the writing; and if the further-sought information had been given on paper, Mr. Forss might have avoided our detection of his want of practical knowledge.

P. H. Berthon, Esq.

We are, &c.
JNO. ADLEY.
THOS. R. LEATH.
WM. BAYNES.
H. G. BRISTO.

No. 128.

MR. FARRER to the SECRETARY, TRINITY HOUSE.

(No. 3,826.) Marine Department, Board of Trade,
9th April 1859.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 6th instant, transmitting report of the Sub-Commissioners of Pilotage at Ipswich relative to the rejection by them of Mr. H. Forss who had applied for a pilotage certificate.

I am to request that the Elder Brethren of the Trinity House will call upon the Sub-Commissioners to state distinctly and fully what were the specific matters for ignorance of which they rejected Mr. Forss, and to forward at the same time such charts and descriptions of the particular locality as will enable the Elder Brethren and my Lords to judge of the propriety of such rejection.

I have, &c.
T. H. FARRER.

The Secretary, Trinity House.

No. 129.

MR. F. GIDDINGS to the SECRETARY of the BOARD of TRADE.

(No. 4,476.) Woolwich Steam-Packet Company, Limited,
Roff's Wharf, Woolwich, 21st, April 1859.

SIR,

WITH reference to my letter of the 12th ult. on the subject of the examination of Captain Forss, of the steamer "Metis," belonging to this Company, to act as pilot on her passage to and from Harwich and Ipswich, I am instructed by the Directors to enclose you a letter which has been addressed to their Chairman, by Captain Moore, late of the "Orwell," the steamer that traded last season between London and Ipswich, from which letter it will clearly appear that it will be next to useless for Captain Forss to be again examined by those parties; and to respectfully request that, if possible, a correct chart of the River Orwell may be obtained, and that Captain Forss may be examined by , by some competent disinterested party in London, or that such other steps may in the wisdom of the Honourable the Board of Trade be taken, as may meet the justice of the case; it appearing that the present proceeding of the Local Board at Ipswich is an attempt to uphold a monopoly altogether foreign to the spirit of the Merchant Seamen's Act.

I have, &c.
F. GIDDINGS,
Secretary.

The Secretary of the Board of Trade.

Enclosure in No. 129.

Victoria Docks, late of the "Orwell," Ipswich Steamer,
12th April 1859.

SIR,

HAVING seen by report that Captain Forss did not pass the examination at Ipswich, I am able to say that he never will under the present system of local boards. I am ready to state what the pilot master should state to me that I never should pass while commanding the "Orwell" steamship; no matter what marks I might have, whether right or wrong, I should not pass; and also the under pilots told me the local interests would not allow me to pass; I was perfect in my marks, but is no use of the attempt at that board (sic). I should recommend Captain Forss to pass in London.

I have, &c.
H. F. MOORE.

Charles Long, Esq.

No. 130.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 4,875.)

SIR, Trinity House, London, E.C., 4th May 1859.

REFERRING to your letters of 18th March and 9th and 23rd ult. on the subject of the refusal of the Sub-Commissioners of Pilotage at Ipswich, to certify that Mr. Henry Forss is competent to pilot the steam vessel whereof he is master, in that district, I am now directed to acquaint you that, having called upon the Sub-Commissioners as requested by your letter of 9th ult., to state distinctly and fully what were the specific matters, for ignorance of which they rejected Mr. Forss, the Elder Brethren have received from them a letter of which the enclosed is copy, together with charts and particulars relating to the navigation of the River Orwell; and that having carefully considered the same, they are of opinion that the answers given by Mr. Forss to the questions put to him by the Sub-Commissioners on the points detailed in their letter, were most unsatisfactory, and that his want of the necessary acquaintance with the navigation of the River Orwell, as evinced thereby, was such as to justify the Sub-Commissioners in refusing to certify his fitness to pilot a passenger vessel in that river.

I have, &c.
P. H. BERTHON.

The Secretary, Marine Department,
Board of Trade.

Enclosure in No. 130.

SIR, Ipswich, 20th April 1859.

IN reply to yours of 13th instant, requesting us to state distinctly and fully what were the specific matters, for ignorance of which we rejected Mr. H. Forss' application for a certificate of competency to pilot a steam vessel within the Ipswich district, &c.;

We beg to forward two charts and descriptions of the river. The smaller of the two is on a larger scale and more correctly drawn, but applies only to that part on which Mr. Forss was examined; and as the channel is very narrow, and we were not satisfied with his knowledge, he was questioned no farther down than Bridge Lake.

Mr. Forss' answers in general were far from satisfactory, and of some of the buoys, and of the New Cut, and Wherstead Reach he was particularly ignorant, and from what we could judge during two patient examinations, we did not feel justified in granting him a certificate for piloting a passenger ship.

We state hereon a few of the questions and replies on the deficient points.

We request that the charts and particulars may be returned, as they are private property.

We are, &c.
JNO. ADLEY
THOS. R. LEATH.
WM. BAYNES.
H. G. BRISTOW.

P. H. Berthon, Esq.
&c. &c.

Questions.	*Answers.*	*Observations.*
Suppose you are going down Cliff Reach how do you know when you are down to Upper Hearth Point if that buoy be gone?	No definite answer could be given.	———
How do you know when down to Lower Hearth Point?	Ditto.	———
What is the course from Upper to Lower Hearth?	S.S.W.	Should have been S. by E.
Course from Lower Hearth to Fen Bight?	We do not steer by course, we have none.	Do. S.E. by E. ½ E.
From Fen Bight which Reach would you go down?	Wherstead Reach we take instead of the New Cut.	This is never taken except on emergencies of not being able to go through the New Cut.
You say you would go down Wherstead Reach, how do you know when down to the point as there is no buoy?	The mill on an opening of Hog-highland Grove, on the Cathouse with John's Ness.	Both these will carry a vessel on shore on the main of Black Oaze, and cannot show when down to the point.
What is the leading mark down Wherstead Reach?	A free S. of Upper Triangle with a free S. of Belstead Wood, till I get the upper of three houses on Freeston Boot.	These are cross marks and therefore cannot be leading ones.
Are there any shoals in the river that will pick you up?	There is no shoal will pick us up of our draft.	There are six shoals that will do so, viz., the Spy, Fen, Bight, lower side of Black Oaze Knoll (at low water) Round Oaze Lake. Redgate Hard, Bridge Lake.

No. 131.

Mr. Farrer to the Secretary to the Trinity House.

(No. 4,875.) Marine Department, Board of Trade,
Sir, 7th May 1859.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 4th inst. on the subject of the refusal of the Sub-Commissioners of Pilotage at Ipswich, to give Mr. Henry Forss a certificate of pilotage, and to request that you will be so good as to forward for their Lordships' inspection the charts and particulars relating to the navigation of the River Orwell alluded to in your letter.

I have, &c.
The Secretary to the Trinity House. T. H. FARRER.

No. 132.

Mr Farrer to the Secretary, Trinity House.

(5,019.) Marine Department, Board of Trade,
Sir, 13th May 1859.

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the inclosed letter in original from Mr. Joseph Dutton, the District Superintendent of the Eastern Counties Railway at Ipswich, having reference to the grant of a pilotage certificate to a Mr. Edward Dorling, proprietor of certain steamboats running between Harwich and Ipswich.

Before replying to the inclosed letter my Lords will be glad to receive from the Elder Brethren a report of the circumstances under which the pilotage certificate was granted to Mr. Dorling, and any observations which they may desire to make on the subject of Mr. Dutton's inquiry.

I am, &c.
The Secretary, Trinity House. T. H. FARRER.

Enclosure in No. 132.

Eastern Counties Railway District Superintendent Office,
Ipswich, 7th May 1859.

Sir, Pilot Licences for the River Orwell, Masters and Mates, 340th Clause.

Referring to your communication of the 15th ult., in reply to my letter of the 11th ult.;

A case in point has arisen which will put my question more clearly before your Lordships, and for general information to the shipping interest of the port of Ipswich, I should be glad if your Lordships would favour me with an expression of opinion upon it.

The Sub-Commissioners of Pilotage at Ipswich have through the Trinity Board granted a pilot licence to a person for passenger steam boats, who has not been brought up to the river, or been to sea, or served any apprenticeship to either, or the pilotage, or has been in the capacity of master, mate, or seaman with a certificate of either service or competency.

It being a well-known fact that masters and mates of vessels of the port of Ipswich who have been on the river and to sea from the port all their lifetime cannot get such certificate, for the very reason that there is not a published chart of the River Orwell, or sailing directions, as a basis for an examination, but a private chart with marks and bearings only known to the pilots and Commissioners themselves. The port of Ipswich, with a dock of 32 acres, and registered tonnage of shipping belonging to the port of 20,000 tons, and a gross tonnage of 150,000 tons inwards in the year, have not a published chart of the navigation on a scale sufficient for a master or mate to be examined upon on presenting himself for a pilot's licence.

In the whole port there are only three masters and two mates having such licences, who obtained them under clause 355 for having piloted their vessels for two years before the Act of 1854; consequently it amounts to a monopoly by such marks and bearings and courses of the reaches not being published.

The fact of the Sub-Commissioners having granted a licence to a person who has not been to sea or brought up on the river now raises the question of the eligibility of persons presenting themselves for pilot licences for home trade passenger ships. I attach vouchers showing your Lordships that the person in question is a steamboat agent for London boats, and is also interested as part owner of river boats plying between Ipswich and Harwich.

The proper interpretation of the clause is, I have every reason to believe, a relief to captains and mates, who are so by their certificates of service or competency, to enable them to be eligible for pilot licences.

If the Act is inoperative upon such a matter the owner of several steamboats may read up, or get such information as to get through an examination, and by being on board exempt any of his boats from pilotage; the question devolves upon whether the Act constitutes a master or mate to be eligible,

and whether the Sub-Commissioners are not in error in granting the licence to a person not a certificated master or mate.

The person in question also holds the excise licences for the sale of spirituous liquors, wine, and beer, on board his boats, which is forbidden by clause 365 to persons holding a pilot's licence.

I have, &c.

The Secretary, Marine Department,
Board of Trade.

Joseph Dutton,
District Superintendent.

Sub-Enclosure 1 in No. 132.

Vide "Ipswich Times," April 15th, 1859.

Mr. Edward Dorling, proprietor of the Alma steamboats plying between Ipswich and Harwich, has passed his examination before the Trinity Board, and received the necessary qualifications to practise as a pilot on the River Orwell.

Sub-Enclosure 2 in No. 132.

Waterman and Woolwich Steam-Packet Companies, Limited.—Steam between Ipswich, Harwich Walton-on-the-Naze, and London.

On and after Saturday, the 16th instant, the fast and favourite steam-packet "Father Thames" will leave as follows, weather permitting:—Down—Tuesdays, Thursdays, and Saturdays. From Hungerford Market, Temple, and Blackfriars, 9¼; London Bridge, lower side, 10; Blackwall, 10½; Tilbury Pier, Gravesend, about 11¾. Up—Mondays, Wednesdays, and Fridays. From Ipswich, 9; Harwich, about 10; Walton, about 10¾.

Fares.	Fore cabin.	Saloon.
Single Passage - - - - - -	3*s.* 6*d.*	4*s.* 6*d.*
Return Tickets, available for 7 days from date of issue -	5*s.* 0*d.*	7*s.* 0*d.*
From Ipswich or Harwich to Walton - - -	1*s.* 0*d.* either cabin.	

Agents:—Mr. Dorling, Steam-packet Office, Ipswich; Mr. Hammond, Alma Inn, King's Head Street, Harwich; Mr. Manning, Walton; Mr. H. Ward, Pin Mill.

April, 1859.

Sub-Enclosure 3 in No. 132.

Dorling's Almas—Cheap Trips—Good Friday and Easter Sunday, April 22nd and 24th, 1859, the above favourite steamers will run (weather, &c., permitting,) from Ipswich, 9·30 a.m., 2·30 p.m; from Harwich, 11·0 a.m., 5·30 p.m. On Easter Monday from Ipswich, 8·30 a.m., 12·0 a.m., 3·30 p.m; from Harwich, 10·0 a.m., 1·30 p.m., 5·0 p.m. Fare for the double journey, to any part of the boat, Sixpence.

No. 133.

Mr. Berthon to the Secretary, Marine Department, Board of Trade.

(No. 5,127.)

Sir,

Trinity House, London, E.C, 11th May 1859.

Having laid before the Elder Brethren your letter of the 7th instant requesting, with further reference to the refusal of the Sub-Commissioners of Pilotage at Ipswich, to give Mr. Henry Forss a certificate of pilotage, that the charts and particulars alluded to in my letter of 4th may be forwarded for the inspection of the Lords of the Committee of Privy Council for Trade, I am directed to acquaint you, for their Lordships' information, that the charts and particulars alluded to are in manuscript and private property, as stated by the Sub-Commissioners in one of their letters, a copy of which is now before their Lordships, and that the Elder Brethren regret that they do not consider themselves at liberty to part with them unless with concurrence of the proprietor.

I have, &c.

The Secretary, Marine Department,
Board of Trade.

P. H. BERTHON.

No. 134.

Mr. Farrer to the Secretary, Trinity House.

(No. 5,127.)

Sir,

Marine Department, Board of Trade,
17th May 1859.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 11th instant, stating that the charts and particulars relating to the navigation of the River Orwell, referred in your letter of the

4th inst. are private property, and that the Elder Brethren of the Trinity House do not feel themselves at liberty to part with them without the concurrence of the proprietor.

I am to state in reply that without inspecting these charts it is impossible for this Board to judge of the questions at issue.

My Lords must accordingly insist upon their being sent to this Office, and desire me to express their surprise that such a body as the Sub-Commissioners should keep documents of this description from the knowledge of those who are interested in the navigation.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 135.

MR. BERTHON to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 5,673.)

SIR, Trinity House, London, E.C., 27th May 1859.

REFERRING to your letter of 17th instant stating, in reply to mine of the 11th, that without inspecting the charts and particulars relating to the navigation of the River Orwell, it is impossible for the Lords of the Committee of Privy Council for Trade to judge of the question as to the propriety of the refusal of a certificate of pilotage to Mr. Henry Forss, and that their Lordships must accordingly insist upon their being sent to the Office for Trade, I am directed by the Elder Brethren to state, that having now obtained from the proprietor of the documents in question, his concurrence in their being sent for their Lordships' inspection, they are accordingly transmitted herewith.

With reference to their Lordships' expression of their "surprise that the Sub-Commissioners should keep documents of this description from the knowledge of those who are interested in the navigation," I am to state that the Sub-Commissioners have observed in explanation, that they have never conceived it to be their duty to instruct sailors in the navigation of the river, and that the charts, &c. are kept for the purpose of ascertaining and testing the knowledge of persons presenting themselves for examination and as the means of detecting book-learning from practical experience.

I am to add the request of the Elder Brethren that the documents may be returned to them, and have the honour to be,

Yours, &c.

The Secretary, Marine Department, Board of Trade. P. H. BERTHON.

No 136.

MR. FARRER to the SECRETARY, TRINITY HOUSE.

(No. 5,673.) Marine Department, Board of Trade, 4th June 1859.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 27th ult. transmitting for their Lordships' information and direction the charts relating to the navigation of the River Orwell, which my Lords were desirous of obtaining.

My Lords observe that the charts and directions in question contain a very large number of leading and cross marks. It would therefore without the advantage of some charts of the river, require great experience and a very good memory to retain a knowledge of those marks so perfectly as to be able to repeat them correctly to an examiner.

My Lords desire me accordingly to express their opinion that if these pilotage documents are private property and not intended to be made public, persons desirous of qualifying themselves to pass the required examination by the Pilot Commissioners should at least be allowed to take a copy if they wish it.

As my Lords believe that the marks and bearings of the navigation in the pilotage districts under the jurisdiction of the Trinity House are published for the information of all candidates for examination as pilots, they consider that there ought to be no objection on the part of the Sub-Commissioners to afford equal facilities.

I have, &c.

The Secretary, Trinity House. T. H. FARRER.

No. 137.

Mr. R. French to the Assistant Secretary, Board of Trade.

(No. 1,217.)

Littlehampton, near Arundel, 24th January 1860.

Sir,

I should be extremely obliged by your advice upon the following facts.

I am one of the Commissioners of the port of Arundel, and we have five licensed pilots who are just about sufficient to supply the wants of the port as to pilotage, and keeping the necessary look-out for vessels, and their earnings produce on an average about 80*l.* a year each. I am satisfied that if any less number were employed the trade would have reason to complain that a good look-out was not kept. Indeed this number is always kept up. Our trade in round numbers is two-thirds of it of vessels belonging to the port, and of course therefore a large proportion of the pilotage is paid by them.

At the last meeting of the Commissioners applications were made by 16 masters of ships belonging to the port to be licensed as pilots under the Merchant Shipping Act, and their applications are to be considered at our next meeting, which takes place the 2nd February. I assume that these masters are all competent to pilot their own ships; but it is plain that if the pilotage dues of their ships are no longer to be paid to our five licensed pilots but to be withdrawn from them, it will be impossible for the whole five to get a livelihood as pilots. In fact if all the masters of the ships belonging to the port obtain a pilotage certificate, three at least of the present pilots must give up; and if so, the look-out for ships and attendance on the duties of the port, it is quite plain, cannot be carried on; and all vessels other than those belonging to the port must be very inadequately attended to, if at all, and consequently the trade and income of the port and harbour and the improvements going on in it (and which have been for some time extensive and important) will be completely paralyzed.

Would you kindly say under these circumstances what course the Commissioners should in your opinion take.

I have, &c.

ROBERT FRENCH.

The Assistant Secretary, Board of Trade,
Marine Department, Whitehall, London, S.W.

No. 138.

Mr. Farrer to Mr. R. French.

(No. 1,217.)

Marine Department, Board of Trade,
3rd February 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 24th ult., stating that the granting of pilotage certificates to masters and mates under the 340th section of the "Merchant Shipping Act, 1854," would, as regards the port of Arundel, be ruinous to the present establishment of licensed pilots and detrimental to shipping frequenting that port, and requesting the opinion of my Lords as to the course which the Commissioners for the port of Arundel should take in reference to the examination of candidates for certificates as pilots.

In reply I am to acquaint you that my Lords consider that the intention of the Legislature was that masters and mates proved to be competent to act as pilots in any particular district should be allowed to pilot their own vessels within the limits of such district, and that if the Commissioners for the port of Arundel should, on the grounds stated in your letter, refuse to examine masters and mates under section 340 of the "Merchant Shipping Act, 1854," it would be the duty of the Board to exercise the power given to them by the subsequent clauses of the Act.

I have, &c.

T. H. FARRER.

Robert French, Esq.,
Littlehampton, near Arundel.

No. 139.

Mr. R. Holmes to the Secretary, Marine Department, Board of Trade.

(No. 2,044.)

Port of Arundel, 10th February 1860.

Sir,

Sixteen of the masters of vessels belonging to the port of Arundel having made application to the Commissioners of the port, the Pilotage Authority, to be examined as to

their capacity to pilot the vessels under their own command within the limits of this port; the Commissioners at their meeting held on the 2nd instant, in pursuance of a special notice duly given for taking the application of the masters into consideration, almost unanimously declined to entertain the same. And I was directed as clerk to the said Commissioners to forward to your Honourable Board a copy of the reasons on which the Commissioners found their refusal, and which reasons have been also sent to the said applicants.

I am, &c.

To the Secretary, Marine Department, Board of Trade.

RICHARD HOLMES,
Clerk to the Commissioners of the port of Arundel.

Enclosure in 139.

ARUNDEL PORT.

REASONS why the Commissioners of the port of Arundel consider it their duty to refuse the applications of certain masters of vessels belonging to the said port to be examined as to their capacity to pilot the ships of which they are masters, within the limits of the port of Arundel, and consequent refusal by the Commissioners to grant a pilotage certificate to them under the 340th sect. of the Act 17 & 18 Vict., c. 104.

Because at the present time there are five pilots duly licensed by the Pilotage Authority, namely, the Commissioners of the port of Arundel, to pilot vessels into and out of the harbour and to Arundel, which, by the river Arun, is six miles distant from the sea; that the said pilots receive 3*d.* per ton on the ships' register for piloting vessels into and out of the harbour, and vessels going to or beyond Ford (midway between the harbour's mouth and Arundel), one half more than the said charge, but all vessels using the harbour with the Commissioners' steam tug are allowed a deduction of one halfpenny per ton from those rates.

That the said pilots are appointed, not only to protect all vessels both home and foreign, coming into or going out of the harbour, but also the piers at the harbour's mouth erected since the year 1827, at a great expense for the formation of the said harbour, and which piers are now maintained and improved at a large annual outlay. That the said pilots are required to enter into a bond for 50*l.*, and two sureties of 25*l.* each to answer for any damage or injury occasioned by the carelessness or neglect of such pilots.

That the entries of vessels into the port of Arundel with pilots approximate to the following numbers:—

For the year 1854, 266.
For the year 1855, 222.
For the year 1856, 230; 132 belonging to the port, 92 other British and 6 foreign.
For the year 1857, 249; 179 belonging to the port, 67 other British and 3 foreign.
For the year 1858, 256; 181 belonging to the port, 64 other British and 11 foreign.
For the year 1859, 257; 177 belonging to the port, 63 other British and 17 foreign.

That the earnings of the pilots during the past six years, taken from the returns made to the Board of Trade, are as follows:—

	Gross sum.			Per pilot.		
	£	*s.*	*d.*	£	*s.*	*d.*
For the year 1854	374	3	2	74	16	7
„ 1855	326	8	3	65	5	8
„ 1856	338	2	1	67	12	5
„ 1857	330	2	9	66	0	6
„ 1858	341	9	8	68	6	0
„ 1859	324	5	4	64	17	0

Averaging the last six years, during which time only the pilotage returns have been kept in pursuance of the Mercantile Marine Act, 67*l.* 16*s.* 4*d.* each pilot per annum. Each pilot is required to find a suitable boat properly equipped for his own use at his own expense.

The Commissioners of the port require that a pilot should be always on duty at the mouth of the harbour (see rules, byelaws, orders, and regulations now in force), in order to afford assistance to any vessel bound to or sailing from the port, and if the annual pay of the pilots is to be reduced by allowing all the masters (and if one master is licensed another must be on application, if qualified) of the vessels belonging to the port of Arundel to pilot their vessels into the harbour, the Commissioners feel it will be quite impossible, as they believe, to obtain or retain the service of an adequate number of efficient men to act as pilots, and the foreign and other vessels not belonging to the port or not seeking to have their own masters licensed will lose the benefit of that pilotage service which the Commissioners have always endeavoured to keep up in an efficient manner, and the port thereby sink into disrepute and consequent ruin.

That at present a Bill is before the House of Commons for making a railway to the mouth of the harbour, which will be the means it is expected of bringing increased shipping, especially foreign, to the port; the Commissioners cannot hope to see their anticipations realized without offering to the world that which is expected, whilst the pilotage authority is in their power, namely, efficient pilots always ready when called on or required.

The Commissioners consider the general power of licensing masters and mates under the 17 & 18 Vict. c. 104 could not be intended to apply to the port of Arundel, formed almost entirely of artificial means, the works of which it is so necessary to protect by having pilots fully conversant with the harbour.

An efficient pilotage staff (absolutely called for by the requirements of the port) can only be obtained by the inducement of receiving fair average wages; the licensing of all the masters that may present themselves for examination would reduce the pay of the pilots, which was for the year 1859, 64*l.* 17*s.* per pilot, to a sum at least one-third only of that amount.

The Commissioners consider that they have no funds under their control to keep up a sufficient staff of pilots, and if the Commissioners were secure of any such sum the condition of their harbour works is such as to require the outlay of the whole.

The Commissioners of the port of Arundel therefore, at their meeting held on the 2nd February 1860, feel it right, for the reasons above stated in the discretionary power that is given them by the Act 17 & 18 Vict. c. 104, to refuse the application of the masters of the following vessels, namely, John Blackman, master of the "Nancy," Charles Orsborn of the "Hannibal," John P. Redden of the "Chichester," Daniel Sensier of the "Leader," James Robinson of the "Active," Stephen Hazelgrove of the "Era," Henry Stone of the "Worthy," Samuel Mullinger of the "Lady Bird," James White of the "Elizabeth," James Cooper of the "Syren," Thomas Ranson of the "Levant," Henry Barnard of the "Russell," John Barnard of the "Uncle Tom," Joshua Cobden of the "Tyne," Charles Denyer of the "Ardencaple," and William Tupper of the "Mitchelgrove," who sought to be allowed a pilotage certificate to enable them to pilot their own vessels into and out of the harbour of Littlehampton, called Arundel port, and in which refusal it is hoped, considering that no complaint of an insufficient number of pilots at this port has been made, the Board of Trade will concur, and not consider that this Pilotage Authority has refused without reasonable cause to examine the masters who have applied for that purpose, or that there are any circumstances, which in the judgment of the Board of Trade appear to require the granting of pilotage certificates to those persons now seeking the same.

Thomas Evans, Chairman.	George Lear.
Norfolk Em.	Robert French.
Frederick Duke, Mayor of Arundel.	Hugh Swan.
Henry Holmes.	Wm. Read.
Thomas Bonifice.	W. R. Bull.

Richard Holmes,
Arundel, Clerk to said Commissioners.

No. 140.

Mr. Farrer to the Clerk to the Commissioners of the Port of Arundel.

(No. 2,044.) Marine Department, Board of Trade,
16th February 1860.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 10th instant, transmitting copy of the reasons on which the Commissioners of the port of Arundel have founded their refusal to examine certain masters of vessels as to their capacity to pilot their own vessels within the limits of the port of Arundel.

In reply I am to state to you, for the information of the Commissioners, that in the opinion of my Lords it was the intention of Parliament, as expressed in the Acts of 1853 and 1854, that every master or mate should enjoy the right of having his capacity to pilot his ship ascertained by examination, and if found competent of having a pilotage certificate granted him, exempting him from compulsory pilotage. The necessary power was given to all, if any, pilotage authorities, and in cases where they should refuse to examine such, the Board of Trade was empowered to hold the examination.

This power my Lords have in a recent case found it necessary to exercise, and they cannot doubt that it will be their duty to exercise it again should other cases occur of a similar nature.

Under these circumstances they trust that the Commissioners may see fit to rescind their resolution, and so prevent the necessity of the interference of the Board of Trade.

I am, &c.
T. H. FARRER.

The Clerk to the Commissioners of the Port of Arundel.

No. 141.

Mr. R. Holmes to the Secretary, Marine Department, Board of Trade.

(No. 4,078.)

Sir,

Arundel, 30th March 1860.

On the other side I beg to hand you an extract from the minutes of a meeting of the Commissioners of the port of Arundel, held yesterday.

Be good enough to lay the enclosed extract before my Lords of the Committee of Privy Council for Trade as an answer to their communication of the 15th instant, addressed to me as clerk to the Commissioners of the Port of Arundel.

I have, &c.

The Secretary, Marine Department,
Board of Trade, London.

RICHARD HOLMES,
Secretary.

Enclosure in No. 141.

29th March 1860.

The clerk produced a letter he had received from the Lords of the Committee of Privy Council for Trade, dated 15th March 1860, in answer to the deputation appointed at the special meeting to wait on the Board of Trade, and the deputation having made their report respecting their interview with the Board of Trade, and the letter of the 15th of March 1860, having been fully discussed, as well as the whole question of pilotage in all its bearings, it was moved by Mr. George Lear, and seconded by Captain Holmes, and carried, "That the Board of Trade be informed, the Commissioners do not feel themselves justified (having the interest of the port at heart) to examine the masters who have applied under section 340 of the Merchant Shipping Act, for the purpose of obtaining a pilotage certificate; and the Commissioners therefore leave to the Board of Trade the duty of exercising the powers given them under section 342 of the said Act, if the Board of Trade think it desirable so to do."

Richard Holmes, Clerk.

No. 142.

Mr. Orsborn to the Lords of the Committee of Privy Council for Trade.

(No. 4,166.)

My Lords, Littlehampton, Port of Arundel, 2nd April 1860.

On the other side I hand you a copy of a letter received from Mr. Richd. Holmes, dated the 29th ultimo (see No. 4,078 above), with the decision of the Port Commissioners on the pilot question, stating their refusal to accede to the recommendation of your Lordships, which is now definite. The masters and mates of this port will now avail themselves of the opportunity, as fast as they arrive home, of soliciting your Lordships for their certificates to pilot their own ships within the limits of their own port. The part alluded to in their letter (having the interest of the port at heart) is a mere farce. When, in consequence of not carrying their point, they did at that meeting propose that their harbour steam tug should be sold forthwith, this evidently was done to frustrate the shipowners and ourselves, but I believe the shipowners are now negociating for the purchase of a tug for themselves, therefore the feeling shown by them will have no avail, or check the progress of our views. The charge made by them for towing ships is 3*d.* per ton to Littlehampton, 4*d.* per ton to Ford, and 5*d.* per ton to Arundel.

I am, &c.

To the Lords of the Committee of the
Privy Council for Trade.

CHAS. ORSBORN,
Master of the Schooner Hannibal.

N.B.—Mr. Geo. Lear is a solicitor, and Captain Holmes an old Indian military officer, very aged.

No. 143.

Mem.—Owing to the continued refusal of the Arundel Pilotage Commissioners to examine masters and mates, the Board of Trade exercised the powers given them by sect. 342 of the Merchant Shipping Act, and appointed examiners for the purpose of granting pilotage certificates to qualified masters and mates.

Nineteen candidates passed and received licences during the year 1860.

No. 144.

Mr. Holmes to the Right Hon. the Lords Commissioners of the Privy Council for Trade.

(No. 13,668.)

My Lords, Arundel, 30th December 1861.

I am directed by the Commissioners of the port of Arundel to inform your Lordships that the Commissioners have rescinded their former order refusing to examine

or license masters or mates of vessels applying for leave to pilot their own vessels within the limits of the port of Arundel, in pursuance of the powers contained in the Mercantile Marine Act;

And to state that a Board of Examiners has now been appointed by (the Commissioners) the Pilotage Authority of this port, and that in future all applicants if duly qualified will be licensed by the Commissioners of the port of Arundel.

The Commissioners have fixed the fee on the granting of a certificate at 1*l.*, nothing to be paid on a renewal. Your Lordships' consent to the above fee of 1*l.* is requested.

I have, &c.

To the Right Hon. the Lords of the Committee of Privy Council for Trade. RICHD. HOLMES, Clerk to the Commissioners.

No. 145.

MR. FARRER to the CLERK to the HARBOUR COMMISSIONERS, ARUNDEL.

(No. 13,668.) Marine Department, Board of Trade,

SIR, 7th January 1862.

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 30th ultimo, stating that the Commissioners for the port of Arundel have rescinded their resolution refusing to examine candidates for pilotage certificates, and that in future all applicants will be examined by a Board of Examiners, and if duly qualified will be licensed by the Commissioners.

My Lords desire me to state that they have learnt the decision of the Commissioners with great satisfaction, and they hope and believe that under these circumstances it will not hereafter be necessary for them to interfere.

As regards the masters already licensed by this Board my Lords presume that the certificates granted by this Board will be renewed without further examination or fee.

My Lords see no objection to the charge of 1*l.* as a fee on each licence issued by the Commissioners.

I am, &c.

The Clerk to the Harbour Commissioners, Arundel. T. H. FARRER.

No. 146.

MR. FARRER to the CLERK to the PILOT COMMISSIONERS, BOSTON.

(No. 3,469.) Marine Department, Board of Trade

SIR, 31st March 1859.

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Boston Pilotage Commissioners, the accompanying copy of a memorial from owners and masters of vessels belonging to the port of Boston and with reference to former correspondence on the subject of certain resolutions passed by the Commissioners on the 2nd Feb. 1857, and 8th April 1858, my Lords reques that they may furnished with an answer to, or an explanation of the statement of the memorialists that the Pilotage Commissioners have refused to grant or to renew pilotage licences to masters of vessels.

I have, &c.

The Clerk to the Pilot Commissioners, Boston. T. H. FARRER.

Enclosure in No. 146.

To the Right Honourable the President, Vice President, and the Honourable the Members of th Board of Trade of Great Britain and Ireland.

The memorial of the undersigned owners and masters of vessels belonging to the Port of Bosto in the County of Lincoln,

Sheweth,

THAT your memorialists, in April 1858, memorialized your Honourable Board respecting th partial and inconsistent conduct of the Pilot Commissioners of the port of Boston, in having refuse from February 1857, to examine masters or renew certificates of competency to pilot their ow vessels when drawing more than seven feet of water.

That your memorialists had the satisfaction of receiving from your Honourable Board a lett bearing date 19th July 1858, in which letter your Honourable Board was pleased to say, your Lor

ships "felt it your duty to point out to the Commissioners that they were at variance with the rights "of the shipmasters, under section 340 of the Merchant Shipping Act, 1854, and your Lordships "had the satisfaction to state that they had received a letter from the Pilot Commissioners stating "that the resolutions complained of had been rescinded."

That your memorialists fully expected, from the nature of the above portion of the letter of your Honourable Board, that they should never again have occasion to trouble your Lordships, but that certificates would henceforth be granted and renewed as formerly.

That your memorialists, however, were much surprised at being informed by the Pilot Commissioners on making application for renewal of certificates, at their annual meeting holden 7th February 1859, that henceforth certificates should be neither granted nor renewed to any master whatever.

That your memorialists feel this to be a great wrong.—That owing to the dullness of trade and having to compete with foreigners, they deem it a severe hardship to be thus compelled to pay unnecessary pilotage. And that as they have no course left them to pursue, save that of appealing to your Lordships, they humbly hope your Honourable Board will again kindly consider their case and be pleased to grant them that which the Pilot Commissioners of their own port so unjustly refuse them.

And your memorialists will ever pray.

Chas. Upcraft, Master.	John Reynolds, Owner.
John Turner, Master.	Henry Swan, Master and Owner.
William Buddom, Master and Owner.	Henry P. Taylor, Master and Owner.
Joshua Amos, Master.	William Skinner, Master.
William Tornton, Master and Owner.	James Woods, Junr., Master.
Henry Smaller, Master and Owner.	George Rylatt, Master and Owner.
Wm. Mawer, Master and Owner.	Henry Bovill, Master and Owner.
Luke J. Fawcet, Shipowner.	James Woods, Master and Owner.
George Palmer, Shipowner.	Oliver White, Master and Owner.
Thos. Slater, Shipowner.	Samuel Lee, Master and Owner.
B. Williamson, Master and Owner.	James Sissons, Junr., Master.
Thomas Williamson, Master and Owner.	Wm. B. Rouse, Master and Owner.

No. 147.

Mr. York to the Secretary, Marine Department, Board of Trade, London.

(No. 4,826.)

Sir, Boston, 3rd May 1859.

I am directed by the Boston Pilot Commissioners to forward you a copy resolution passed at a meeting held yesterday, and shall feel obliged by your laying the same before the Lords Commissioners of the Marine Department of the Board of Trade.

I have, &c.

The Secretary, Marine Department,
Board of Trade, London.

GEORGE YORK,
Clerk to the Boston Pilot Commissioners.

Enclosure in No. 147.

At a quarterly meeting of the Pilot Commissoners, holden at the Guild Hall in Boston, on Monday the 2nd day of May 1859.

Present,

Thomas Wise, Esq., appointed Chairman by the meeting in the absence of the Mayor, and 14 other Commissioners.

The clerk having read a second memorial from 24 owners and masters of vessels belonging to the port of Boston, complaining of the Pilot Commissioners refusing to grant or renew certificates to masters of vessels of this port, which had been sent down by the Lords Commissioners of the Board of Trade, with a request that "they might be favoured with an answer to, or an explanation of, the the statement of the memorialists, that the Pilot Commissioners had refused to grant or renew such certificates." It was resolved, on the motion of Mr. Stephen Lewin, seconded by Mr. Isaac Doulton, "That the Boston Pilot Commissioners beg to state in reply to such memorial, and to the letter addressed to them by the Lords Commissioners of the Marine Department of the Board of Trade, dated 31st March last, that they have, in accordance with such letter, carefully perused and considered the whole of the correspondence addressed to them by the Lords Commissioners of the Board of Trade, and also the resolutions that have been passed by this Trust relative to this subject, and are of opinion (although charged with 'partiality and inconsistency') that in consequence of this port being so far inland, and only approachable by channels which are continually shifting by the action of the upland waters on the sands, and requiring daily observation by men of experience, so that such channels may be properly buoyed and beaconed out, and thereby rendered navigable and safe for all classes of ships frequenting this port, that masters and mates of vessels belonging to this port are not fit and competent persons to pilot their own ships into and out of the same, but

" men of experience, and who attend solely to these duties are the only fit and competent persons so " to act. And that the clerk be requested to forward a copy of this resolution to the Secretary of " the Marine Department of the Board of Trade to lay before their Lordships."

Examined,

GEORGE YORK,
Clerk to the Boston Pilot Commissioners.

Boston, 3rd May 1859.

No. 148.

MR. FARRER to the CLERK to the PILOT COMMISSIONERS, BOSTON.

(No. 4,826.)

Marine Department, Board of Trade,
11th June 1859.

SIR,

WITH reference to your letter of the 3rd ult., transmitting copy of a resolution passed at a meeting of the Boston Pilot Commissioners on the subject of the refusal of the Commissioners to grant or renew certificates to masters of vessels of the port of Boston. I am directed by the Lords of the Committee of Privy Council for Trade to request that you will furnish them with the following information :—

1st. A list of the masters and mates of vessels who have passed their examinations, and received certificates from the Commissioners.

2nd. A return of such casualties, if any, as have happened to vessels in the charge of such certificated masters or mates, with the fullest particulars which can be given of the causes of such casualties and their results.

I have, &c.
T. H. FARRER.

The Clerk to the Pilot Commissioners, Boston.

No. 149.

MR. G. YORK to MR. FARRER.

(No. 7,902.)

Boston, 2nd August 1859.

SIR,

I AM directed by the Boston Pilot Commissioners to forward you the accompanying (verbatim) copy of a resolution passed at a meeting held yesterday, and shall feel obliged by your laying the same before the Lords Commissioners of the Marine Department of the Board of Trade.

I have, &c.
GEORGE YORK,
Clerk to the Boston Pilot Commissioners.

T. H. Farrer, Esq.

Enclosure in No. 149.

At an adjourned meeting of the Pilot Commissioners holden at the Guildhall in Boston, on Monday the first day of August 1859.

Present,

Frederick Cooke, Esquire, Deputy Mayor, Chairman, and nineteen other Commissioners.

" It was resolved, on the motion of Mr. Wise, seconded by Mr. Tuxford, that the Commissioners of this Trust having so fully explained to the Board of Trade their reasons for refusing to examine masters and mates as to their competency to pilot their own vessels, decline to make any alteration in a resolution passed at a meeting held on the 2nd of May, to which they particularly call the attention of the Board of Trade, and leave it to the Board of Trade to make such examinations as they may see fit; the Commissioners of this Trust, feeling satisfied that they have only discharged their duty to the shipowner and merchant, by adhering to the use of established pilots in a channel so precarious and deviating as that of the River Witham, and different in its character with most other ports. That the clerk forward a copy of this resolution to the Commissioners of the Marine Department of the Board of Trade."

Examined,

GEORGE YORK,
Clerk to the Boston Pilot Commisioners.

Boston, 2nd August 1859.

No. 150.

Mr. Luke J. Fawcett to the Board of Trade.

(No. 8,345.) Boston, 10th August 1859.

To the Honourable the President, Vice-President, and the Members of the Board of Trade of Great Britain and Ireland.

The memorial of the undersigned Luke John Fawcett, of Boston, in the county of Lincoln, Master Mariner,

Sheweth,

That your memoralist has twice, in connexion with others, memoralized your Honourable Board, respecting the conduct of the Pilot Commissioners of the port of Boston, in the county of Lincoln, in refusing to grant or renew certificates of competency to masters to pilot their own vessels.

That your memoralist has recently been appointed to the command of the "Cumbrian" steamer, and is now plying up and down the River Witham almost daily; that the Pilot Commissioners of the port of Boston, at their annual meeting held in February last, distinctly stated they would neither grant nor renew certificates of competency to pilot their own vessels to any master whatever; and subsequently, at a meeting, held August 1st, they reiterated their determination not to grant certificates to masters. Your memoralist has therefore inclosed testimonials of sobriety and good conduct, and humbly hopes your Honourable Board will be pleased to grant him a certificate of competency to pilot the vessel of which he is master.

And your memorialist will ever pray, &c.

LUKE J. FAWCETT.

No. 151.

Mr. Staniland to Mr. Farrer.

(No. 8,987.) Boston Pilotage.

Sir, Harrington Hall, Spilsby, 3rd Sept. 1859.

In reply to your letter of the 25th ultimo, I have to inform you that Mr. Fawcett tells me he did receive one renewed certificate, but that he was not re-examined. I believe after this he discontinued going to sea.

I have seen another master belonging to Boston (now being at sea) and he informs me that although renewed certificates are granted by the Pilot Commissioners the parties receiving such certificates were not re-examined.

I am, &c.

T. H. Farrer, Esq. W. STANILAND.

No. 152.

Mr. Farrer to Mr. Staniland.

(No. 8,987.) Marine Department, Board of Trade, Whitehall, 9th September 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 3rd instant on the subject of the refusal of the Boston Pilot Commissioners to examine masters of vessels for pilotage certificates, and to inform you that my Lords have determined on exercising the powers given to them in such cases by the Merchant Shipping Act, 1854, and they propose to hold an examination at Boston in the early part of next month with the view of granting certificates to such masters and mates as may prove to be competent. A copy of a notice which it is proposed to insert in the local papers is enclosed.

I am, &c.

N. Staniland, Esq., M.P., Harrington Hall, Spilsby. T. H. FARRER.

No. 153.

Mr. Farrer to Mr. Fawcett.

(No. 8,345.) Marine Department, Board of Trade, 9th September 1859.

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your memorial of the 10th ultimo, complaining of the refusal

of the Boston Pilot Commissioners to renew your pilotage certificate, and requesting this Board therefore to grant you a certificate, and I am to inform you that in consequence of the continued refusal of the Commissioners my Lords have determined to take steps for holding an examination at Boston.

I am, &c.

Mr. Luke J. Fawcett, Master Mariner, "Cumbrian" steamer, Boston, Lincolnshire. T. H. FARRER.

No. 154.

MEM.—IN consequence of the refusal of the Boston Pilot Commissioners to grant or renew certificates to masters of vessels belonging to the port of Boston, the Board of Trade, in the exercise of their powers under the 342nd section of the Merchant Shipping Act, 1854, appointed examiners at the port of Boston with the view of granting pilotage certificates to masters and mates who might prove themselves qualified to act as pilots on board their respective vessels. Twenty-one candidates have passed, and have been licensed as pilots accordingly.

No. 155.

Mr. CALDER to the BOARD of TRADE.

(No. 5,896.) Glasgow Steam Ship Offices,

GENTLEMEN, Quay, Waterford, 15th May 1860.

HAVING ineffectually applied to the Commissioners for improving the port and harbour of Waterford, to examine me as to my capacity to pilot vessels of the Glasgow, Cork, and Waterford Screw Steam Ship Company, of which vessels I am master of the "Tuskar," and the Commissioners having replied that they do not think fit at present to proceed to examine me for a pilotage certificate to pilot vessels in the Waterford Harbour and River, I now request that your Honourable Board will appoint, under the provisions of the Merchant Shipping Act, 1854, a person to examine me, or otherwise direct me as to what certificates you will require, so that I may obtain a formal certificate from your Honourable Board to pilot the "Tuskar" and other vessels in the Waterford Harbour and River.

Yours, &c.

The Board of Trade, Whitehall, London. CHAS. CALDER.

No. 156.

MR. FARRELL to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 6,160.)

SIR, Ballast Office, Waterford, 22nd May 1860.

THE Waterford Harbour Commissioners direct me to return their thanks for your letter of the 17th instant, No. 5,896, enclosing Captain Calder's application to the Board of Trade, dated the 15th instant.

The following was the resolution of the Harbour Commissioners on the subject referred to in these communications:—"Resolved, that we do not think fit at present to proceed "to examine candidates for pilotage certificates, but refer them to section 355 of the "Merchant Shipping Act of 1854."

I am authorized to say that the Harbour Commissioners' unwillingness to hold examinations of masters and mates, arises from their strong conviction that if the issue of such pilotage certificates would have the effect of exempting vessels from payment of pilotage rates, the Commissioners would be unable to maintain, in anything like its present high state of efficiency, the pilot establishment now existing in this harbour, and to continue to pay the pensions and superannuation allowances granted by virtue of the Waterford Harbour Act, 9th and 10th of the Queen, chapter 292.

By this Act the payment of pilotage is rendered obligatory upon vessels of more than six feet draught of water, and he providing of pilots and the maintenance of an efficient establishment are made obligatory upon the Waterford Harbour Commissioners. Upon behalf of the Commissioners I am now respectfully to submit to the consideration of the Board of Trade, that if a certificate be granted in the present instance, it is within the knowledge of the Commissioners, numerous similar applications will follow from masters

of steamers and other vessels frequenting the port, and that the exemption of large classes of vessels from the first of the obligations just mentioned, would render the carrying out of the latter obligation impracticable, and would lead, it is much feared by the Commissioners, to the breaking up of a well arranged and most useful pilot establishment.

Under these circumstances the Waterford Harbour Commissioners earnestly request that their Lordships will not adopt measures calculated to endanger the existence of arrangements, the fulfilment of engagements, such as I have submitted for their Lordships' favourable consideration.

I am directed to ask your permission to add that in the fair and reasonable belief that compulsory pilotage would continue to be the law of the port, the Harbour Commissioners have allowed their pilotage fund to become indebted to the other departments entrusted to their administration. On the 31st of March last, the close of the Commissioners' financial year, the balance due by pilotage to the general revenues of the Commissioners amounted to nearly 3,000*l*. The gradual repayment of this balance is now essential to the well being of the port, as the Commissioners contemplate the immediate procuring of a powerful dredging vessel, much needed at different localities within the harbour, and the repayment of even a portion of the debt would be prevented by the issue of any pilotage certificates, having the effect of exempting vessels from the compulsory but perfectly equitable payment of pilot dues prescribed by the Waterford Harbour Act.

I have, &c.

The Secretary, Marine Department, Board of Trade, London.

JOHN FARRELL,
Secretary, Waterford Harbour Commissioners.

No. 157.

MR. BOOTH to the SECRETARY, WATERFORD HARBOUR COMMISSIONERS.

(No. 6,160.)

Marine Department, Board of Trade, 18th June 1860.

Sir,

I AM directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 22nd ult., stating that the Waterford Harbour Commissioners have resolved "that they do not think fit at present to proceed to "examine candidates for pilotage certificates, but refer them to sect. 355 of the Merchant "Shipping Act 1854," and also giving the reasons why the Commissioners have come to this determination.

I am to acquaint you, for the information of the Commissioners, that the same reasons which are given by them as grounds for the refusal of pilotage certificates to masters and mates have already been disregarded in other cases as not consistent with justice to those persons who, under the 340th sect. of the Merchant Shipping Act, 1854, are entitled to have pilotage certificates, if upon examination they prove themselves competent to act as pilots.

My Lords therefore hope that the Waterford Harbour Commissioners will reconsider their determination, and thus relieve this Board from the duty of exercising the powers given them by the 342nd sect. of the above Act to appoint examiners to examine such masters and mates as the Commissioners refuse to examine for pilotage certificates.

I have, &c.

The Secretary to the Harbour Commissioners, Waterford.

J. BOOTH.

No 158.

MR. FARRER to MR. FARRELL, SECRETARY, HARBOUR COMMISSIONERS, WATERFORD.

(No. 4,544.)

Marine Department, Board of Trade. 20th April 1861.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for the information of the Waterford Harbour Commissioners, copy of a letter which my Lords have received from Messrs. Ford and Jackson, inclosing a copy of the resolution passed by the Commissioners on the 18th inst., declining to examine the masters and mates of certain steam ships trading between Milford Haven and Waterford, with the view, if found competent, of granting them pilotage certificates, under the 340th section of the Merchant Shipping Act, 1854.

My Lords desire me to call the attention of the Commissioners to the 342nd section of the above Act, and to state that the Commissioners have not in the opinion of this Board

shown reasonable cause for the refusal on their part to examine masters and mates for pilotage certificates.

My Lords trust that the Commissioners will reconsider their determination, as otherwise their Lordships will feel it incumbent upon them to exercise their powers under the last named section of the Act, as they have already done at other places, and to appoint examiners of masters and mates who are desirous of obtaining pilotage certificates for the port of Waterford.

My Lords request an early answer.

I have, &c.
T. H. FARRER.

John Farrell, Esq., Secretary, Harbour Commissioners, Waterford.

Enclosure in No. 158.

SIR, 36, Canon Street, London, E.C., 13th April 1861.

As owners of several steam ships running daily each way between Milford Haven and Waterford, we beg leave to bring to bring to your notice the following very serious grievance, to which we have for several years past been subjected by the local pilotage authorities of the port of Waterford evading or refusing to examine our masters or mates, with a view to their being licensed as pilots for that river, under the provisions of the Merchant Shipping Act of 1854.

We have applied in vain to the local authorities, and meanwhile have been mulcted in sums exceeding five hundred pounds per annum as pilotage, whilst our own captains and mates, from their daily use of the port, are as thoroughly competent pilots as any that navigate the river.

From the sea as far up the river as Passage our ships are not supplied with pilots, but nevertheless have had to pay for them.

This tax is so oppressive as to be almost prohibitory of the trade, and in the hope that you will interpose to prevent the continuance of this extortion, by causing our own masters and mates to be examined as pilots under the provisions of the Merchant Shipping Act, and if found competent that they may be granted the necessary certificate,

We beg to enclose herewith a copy of the last reply of the Waterford Harbour Commissioners to our application to them on the subject.

Waiting your reply,

We have, &c.
FORD & JACKSON.

To the Secretary of the Board of Trade, Marine Department, Whitehall.

GENTLEMEN, Ballast Office, Waterford, 10th April 1861.

YOUR letter of the 19th ult. was read at yesterday's meeting of the Harbour Board, and at next page you have copy of resolution adopted in the matter.

I have, &c.
JOHN FARRELL, Secretary,
Waterford Harbour Commissioners.

Messrs. Ford and Jackson, New Milford.

Waterford Habour Commissioners.

Resolved,—Believing that the granting of pilotage certificates to masters and mates of vessels will tend to the extensive injury, if not the total breaking up of a pilot establishment deemed necessary for the preservation of life and property, we respectfully decline to proceed to the examination of candidates for such certificates.

No. 159.

MR. FARRELL to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.
(No. 4,935.)

SIR, Ballast Office, Waterford, 23rd April 1861.

I AM directed to acknowledge the receipt of Mr. Farrer's letter of the 20th instant, No. 4,544.

In a letter dated the 22nd of May 1860, the Waterford Harbour Commissioners explained to the Board of Trade the cause of their unwillingness to examine candidates for masters' pilotage certificates. The further consideration they have given to the subject has strengthened the belief and apprehension to which they gave expression in that letter.

The Commissioners beg to say that their continuing to decline to accede to the demand for examination proceeds from no want of respect for the judgment of your Honourable Board, but believing the destruction of their pilot establishment would be the almost certain result of the issue of the certificates,—a result involving the loss of life and property,—they feel this is a responsiblity which they ought not to incur.

The Commissioners desire altogether to repudiate the charge of "extortion" made against them by Messrs. Ford and Jackson. They have never claimed any due which

hey were not entitled to by Act of Parliament, nor are their charges for pilotage higher han those of many other ports.

The Commissioners may also remark that the application of Messrs. Ford and Jackson s of very recent date, and has received no unnecessary delay at the hands of this Board.

I have &c.

To the Secretary, Marine Department, Board of Trade.

JOHN FARRELL, Secretary, Waterford Harbour Commissioners.

No. 160.

Mem.--Owing to the above decision of the Waterford Harbour Commissioners, the Board of Trade, in pursuance of the powers under the 432nd sect. of the Merchant hipping Act, 1854, appointed examiners at the port of Waterford, with the view of ranting pilotage certificates to masters and mates who might prove themselves qualified o act as pilots on board their respective vessels.

Nine candidates passed in 1861, and six passed in May 1862, and 15 certificates have een granted by the Board of Trade accordingly.

No. 161.

Mr. Farrer to the Clerk to the Commissioners for Pilotage, Londonderry.

(No. 7,560.)

Marine Department, Board of Trade, 13th July 1861.

IR,

I am directed by the Lords of the Committee of Privy Council for Trade to ansmit for your information the accompanying copy of an application from the Iontreal Ocean Steam Ship Company praying that as the pilotage authorities for the ort of Londonderry have refused to examine their masters and mates for pilotage ertificates, enabling them to pilot their steam vessels into and out of Lough Foyle, my ords will appoint examiners for the purpose.

My Lords request that you will call the attention of the Commissioners for Pilotage at ie port of Londonderry to the 342nd sect. of the Merchant Shipping Act, 1854, which ables this Board to appoint examiners in case the pilotage authorities cannot show easonable cause why they refuse to examine masters and mates who apply to them for lotage certificates. I am to state that unless the Commissioners can give valid reasons r refusing to examine masters and mates, my Lords will feel it incumbent upon them exercise the powers under the section of the Act above named with the view of granting rtificates to such persons as have been rejected by the Commissioners and can give roof of competency to pilot their own vessels within the limits over which the juris- ction of the Commissioners extends. I am to request the favour of an early iswer.

I am, &c.

The Clerk to the Commissioners for Pilotage, Londonderry.

T. H. FARRER.

Enclosure in No. 161.

R,

70, Great Clyde Street, Glasgow, 9th July 1860.

As some of the commanders of the Montreal Ocean Steamship Company's Steamers, trading tween Liverpool and Canada and calling at Lough Foyle to land and receive passengers and mails, ve without reasonable cause been refused pilotage certificates by the authorities of Londonderry the pilotage of the Company's steamers from the entrance of Lough Foyle to and from Moville; request you will be pleased to appoint persons to examine the masters of the undernoted steamers, d if found competent to grant them pilotage certificates entitling them to pilot any of the Company's eamers to and from Moville and Lough Foyle.

Captain Andrew McMaster of the S.S. Norwegian.
" John Graham " S.S. Anglo Saxon.
" William Ballantine " S.S. Nova Scotia.
" Robert Borland " S.S. North Britain.
" William Burgess " S.S. North America.
" William Grange " S.S. Hibernian.

We are, &c.,

the Secretary, Marine Department, Board of Trade.

Jas. and Alexander Allan.

No. 162.

Mr. Stewart to the Secretary, Marine Department, Board of Trade.

(No. 8,034.) Port and Harbour Office,
Londonderry, 24th July 1861.

Sir,

Your letter of the 13th July, No. 7,560, forwarding copy of an application from the Montreal Ocean Steamship Company, with reference to pilotage certificates, for their masters and mates to enable them to pilot their steam vessels into and out of Lough Foyle, was considered by the Commissioners.

In order to bring the subject fully before you, and to give a satisfactory reply to the statements, it is necessary to enter at some length into the circumstances connected with the facilities afforded that Company by the Commissioners in placing buoys, and erecting a lighthouse specially for them, and granting certificates to properly qualified men to pilot their steamers.

I beg to state, for the information of the Lords of the Committee of Privy Council for Trade, that in May 1860 on inquiry made by the Company as to the port charges to which their vessels would be liable, in case they made Derry a port of call for their steamers, the Commissioners passed a resolution that no tonnage rates be charged the Canadian mail steamers, and that if they carried properly qualified pilots the necessary certificates would be granted them, so that they might avoid the expense of pilotage.

At considerable cost a mooring buoy was placed of Moville for the sole use of their steamers, and a lighthouse was erected on Warren Point Rock. At the same time a certificate was granted William Stewart, a shipmaster who formerly held a certificate from the Commissioners, to be specially employed to pilot the Canadian steamers, but this arrangement not proving so satisfactory as the Company could desire, on special application a supernumerary pilot was appointed for each ship, the usual pilotage being remitted, but they paying the men so employed seamen's wages.

A week afterwards application was made by Captain Thomas Aiton of the steamship "North American" for a certificate, which was granted him after examination, he having at the time a supernumerary pilot on board, and who continued to sail with him.

In April 1861, Captains McMaster, Grange, and Burgess presented themselves for examination; the examiners considering they had not sufficient knowledge of the tides and harbour and entrance thereto, the Commissioners declined incurring the responsibility of granting certificates in those cases.

On the 10th May 1861, Captain Graham applied to be examined on that day, but no previous notice having been given to summon a meeting for the purpose it could not be done.

From the foregoing their Lordships will no doubt conclude the Commissioners have done all in their power to afford facilities to the Montreal Ocean Steamship Company in navigating this river. Not only have they remitted upwards of 2,500*l.* per annum in tonnage dues, but they have gone to an additional expense of about 500*l.* in buoys and lighthouse, specially with a view to secure their safety.

To supplement the expense of a steam tender, to carry the mails up and down to Moville, to and from the Canadian boats, the Commissioners and others connected with the trade of Derry individually paid 350*l.* for the past year.

Under these circumstances the Commissioners are satisfied that your Department will acquit them of having, without reasonable cause, refused to grant certificates to the masters and mates of the Canadian steamers, but should their Lordships decide on appointing examiners under the 342nd section of the "Merchant Shipping Act, 1854," the Commissioners are ready to afford every facility in their power, and lend their aid in conducting the examination if required.

I am, &c.
A. H. STEWART,
Secretary.

The Secretary of the Marine Department,
Board of Trade, London.

No. 163.

Messrs. Allan to the Secretary, Marine Department, Board of Trade.

(No. 8,238.) 70, Great Clyde Street, Glasgow,
31st July 1861.

Sir,

We beg to acknowledge the receipt of your letter of the 27th instant, enclosing copy of the communication received by their Lordships from the Secretary to the Londonderry Port and Harbour Commissioners with reference to our application for Lough Foyle pilotage certificates in favour of the commanders of the Montreal Ocean Steamship Company's steamers.

There are many points in that communication that have no bearing whatever on the estion of pilotage, and to these points we do not refer.

With regard to the matter of pilotage we have to acquaint their Lordships that we are formed that only one of the three commanders stated to have presented themselves for amination in April 1861, was asked any questions respecting the navigation of Lough yle, the others, although present, were allowed to leave without any examination atever.

We believe that the majority of the examiners were either pilots themselves or connected th the local pilots, whose interest it is to retain the pilotage of the ships in the hands of local pilots, and to prevent our captains obtaining certificates.

We are further informed that many of the questions asked by these examiners, in the amination of the masters, had reference solely to the navigation of Lough Foyle, above oville, which is a part of the Lough not traversed by our ships, and to which it is not ended the pilotage certificates should apply.

We feel perfectly satisfied that the captains possess the requisite knowledge to enable em safely to pilot their ships to and from Moville in Lough Foyle, and we have no fear at if they are examined by impartial men they will answer satisfactorily any questions at may be asked of them respecting the navigation of the Lough.

We have therefore to request their Lordships will be pleased to appoint examiners der the 342nd sect. of the Merchant Shipping Act, to examine captains McMaster, ange, Ballantine, Borland, Graham, and Burgess. We would respectfully suggest that examiners appointed should be men who have no personal interest in preventing the sters obtaining certificates.

We are, &c.

The Secretary of the Marine Department, Board of Trade, Whitehall, London.

JAS. & ALEX. ALLAN.

No. 164.

MR. A. H. STEWART to the SECRETARY, MARINE DEPARTMENT, BOARD of TRADE.

(No. 8,722.)

Port and Harbour Office,
Londonderry, 13th August 1861.

I AM directed by the Londonderry Port and Harbour Commissioners to acknowledge receipt of your letter of the 1st August, transmitting copy of a communication from essrs. J. and A. Allan, in reference to pilotage certificates to the masters of the ontreal Ocean Steamship Company's steamers.

The Messrs. Allan state that my last communication contained matters having no aring whatever on the question of pilotage, but I think their Lordships will see that matters referred to, being explanatory statements of the facilities afforded by the mmissioners to the Company's steamers, are not altogether irrelevant to the question certificates.

In reference to those commanders who presented themselves for examination in ril 1861, the Messrs. Allan state that only one of them was asked any questions garding the navigation of Lough Foyle. I am instructed, however, to acquaint you t questions were put to all of them, but the answers of two of them being so unisfactory that further questions were considered unnecessary. One of these commanders en asked regarding the soundings at the entrance of the harbour replied, "Give me a chart and then I will answer." The commanders in question were entirely unacquainted h the tides and land-marks, a knowledge of which is absolutely necessary, should the ys, and especially that placed on the "Tuns" bank get out of position, an occurrence t often takes place, particularly with the latter, which burst its moorings in spring , and a period of nearly two months elapsed before it could be replaced.

I am further instructed to inform you that all the questions asked by the examiners l reference only to that portion of the harbour lying between Moville and the sea, l not to any part of the Lough above Moville.

It is put forward by the Messrs. Allan that the majority of the examiners were either ts or connected with pilots, but the Commissioners consider that men who have spent rly a lifetime in acquiring a thorough knowledge of the harbour are better qualified test the competency of captains than any other examiners; but at the same time, as ore proposed, the Commissioners will afford every facility in their power, should their rdships decide on appointing any other persons to examine the masters of the Montreal ean Steamship Company's steamers for pilotage certificates for Lough Foyle.

I have, &c.

The Secretary, Marine Department, Board of Trade, Whitehall, London.

A. H. STEWART, Secretary.

No. 165.

Mr. Farrer to the Secretary to the Port and Harbour Commissioners, Londonderry.

(No. 8,722.) Marine Department, Board of Trade,
Sir, 16th August 1861.

I am directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 13th instant, on the subject of the complaint of Messrs. Allan with reference to the examination of the masters of the Montreal Ocean Steamship Company's steamers for pilotage certificates for Lough Foyle, and I am to transmit to you, for the information of the Londonderry Port and Harbour Commissioners, the inclosed copy of a letter this day written by my Lords' direction to Messrs. Allan.

I am, &c.
T. H. FARRER.

The Secretary to the Port and Harbour Commissioners, Londonderry.

Enclosure in No. 165.

Gentlemen, 70, Great Clyde Street, Glasgow.

Referring to my letter of the 1st inst., I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you the enclosed copy of a communication from the Londonderry Port and Harbour Commissioners containing their observations on the statement in your letter of the 31st ult., on the subject of the examination of the commanders of the Montreal Ocean Steamship Company's steamers for pilotage certificates for Lough Foyle.

In forwarding this letter my Lords direct me to observe that in consequence of the incongruities in the statements laid before them they feel, without seeing a complete statement of the questions which were asked, quite unable to form an opinion upon the points at issue between the Company and the Commissioners.

Under all the circumstances my Lords would suggest whether, as the Commissioners seem willing to give every facility for the examination of the masters of the Company's steamers, the best course would not be for some independent person appointed by the Board of Trade to be present at the examination who would be in a position to judge of the fairness or otherwise of the questions put to the candidates.

My Lords have sent a copy of this letter to the Commissioners.

I have &c.,
T. H. Farrer.

Messrs. Jas. & Alex. Allan.

No. 166.

Mr. Stewart to the Secretary, Marine Department, Board of Trade.

(No. 8,995.) Port and Harbour Office, Londonderry,
Sir, 21st August 1861.

I am directed by the Londonderry Port and Harbour Commissioners to acknowledge the receipt of your letter of the 16th inst., in reference to the examination of the masters of the Montreal Ocean Steamship Company's steamers for pilotage certificates for Lough Foyle, and enclosing copy of a communication addressed to the Messrs. Allan on the subject.

The Commissioners desire me to state that they are quite prepared to carry out the part of the suggestion of their Lordships, on the understanding that they are to be exempt from all expenses in connexion with the gentleman appointed by their Lordships to be present at the examination.

I am, &c.
A. H. STEWART.

The Secretary, Marine Department, Board of Trade.

PILOTAGE.

A RETURN,

(For the Year ending 31 December 1861:)

— 1. —

"Of all Bye-Laws, Regulations, Orders, or Ordinances relating to Pilots or Pilotage for the Time being in force, issued by the respective Pilotage Authorities in the United Kingdom:"

— 2. —

"Of the Names and Ages of the Pilots or Apprentices licensed or authorised to act by the respective Pilotage Authorities, and of all Pilots or Apprentices acting either mediately or immediately under such Authorities, whether so licensed or authorised or not:"

— 3. —

"Of the Service for which each Pilot or Apprentice is licensed:"

— 4. —

"Of the Rates of Pilotage for the Time being in force at the Ports under the Jurisdiction of the respective Pilotage Authorities, including therein the Rates and Descriptions of all Charges upon Shipping made for or in respect of Pilots or Pilotage:"

— 5. —

"Of the Total Amount received for Pilotage at the respective Ports aforesaid; distinguishing the several Amounts received from British Ships and from Foreign Ships respectively, and the several Amounts received in respect of different Classes of Ships paying different Rates of Pilotage, according to the Scale of such Rates for the Time being in force, and the several Amounts received for the several Classes of Service rendered by Pilots; and also the Amount paid by such Ships (if any) as have, before reaching the Outer Limits of Pilotage Water if Outward bound, or their Port of Destination if Inward bound, to take or pay for Two or more Pilots, whether licensed by the same or by different Pilotage Authorities; together with the Numbers of the Ships of each of the several Classes paying such several Amounts as aforesaid:"

— 6. —

"Of the Receipt and Expenditure of all Monies (if any) received by or on behalf of the respective Pilotage Authorities aforesaid, or by or on behalf of any Sub-Commissioners appointed by them, in respect of Pilots or Pilotage."

In continuation of Parliamentary Paper, No. 243 *of* 1861.

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)

Ordered, by The House of Commons, *to be Printed,*
23 *May* 1862.

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ABSTRACT

OF THE

RETURNS RELATING TO PILOTS AND PILOTAGE,

RENDERED BY THE RESPECTIVE

PILOTAGE AUTHORITIES IN THE UNITED KINGDOM,

In pursuance of the Merchant Shipping Act, 1854.

For the Year ending 31 December 1861.

ENGLAND AND WALES.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND.

GENERAL REGULATIONS.

See Parl. Paper, No. 244 of 1859, p. 1. The regulations there referred to are still in force. The following has since been issued:—

At the Court at Osborne House, *Isle of Wight*, the 25th day of July 1861,

Present:—The Queen's Most Excellent Majesty in Council.

WHEREAS in certain cases, ships navigating in ballast from ports or places within the United Kingdom, to other ports or places within the United Kingdom, are not exempted from compulsory pilotage:

And whereas it is expedient that such ships should have the privilege of being exempt from pilotage in the cases hereinafter mentioned:

And whereas by the 332d section of "The Merchant Shipping Act, 1854," it is enacted, that "every pilotage authority shall have power, by bye-law made with the consent of Her Majesty in Council, to exempt the masters of any ships, or of any classes of ships, from being compelled to employ qualified pilots, and to annex any terms and conditions to such exemptions:"

And whereas the Trinity House of Deptford Strond, being a pilotage authority, hath submitted, for the consent of Her Majesty in Council, the following bye-law, viz.:—

> "That all ships navigating in ballast from any port or place in the United Kingdom, to any other port or place in the United Kingdom, shall, when not carrying passengers, be exempt from compulsory pilotage within the pilotage jurisdiction of the said Trinity House:"

Now, therefore, Her Majesty having taken the said bye-law into consideration, is pleased, by and with the advice of Her Privy Council, and by virtue of the power vested in Her by the said recited Act, to declare Her consent to the same, and the said bye-law is hereby approved accordingly.

(signed) *Arthur Helps.*

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

GENERAL

Showing the RECEIPT and EXPENDITURE of all MONIES received by or on behalf of

(Prepared in pursuance of sect. 337

RECEIPT.

	£. s. d.	£. s. d.
Dividends:		
One year's dividend on 89,660 *l.* 13 *s.* 1 *d.*, capital, New 3 per Cent. Annuities, (less Income Tax)	- - -	2,583 6 11
Dues and Rates:		
Amount received on annual renewal of licenses to pilots in districts not under the superintendence of Sub-Commissioners	910 8 11	
Poundage on pilots' earnings collected at London and the Outports	3,230 19 5	
Surplus rates of pilotage from ships not having British registers, nor being privileged by any Act or Convention, or Order in Council, to be charged with the British rates only, or not being within the terms thereof	118 15 2	
Dues on turns of pilotage paid by pilots at the Cinque Ports	1,586 4 –	
		5,846 7
Annual payments in lieu of death-money by the pilots at the Cinque Ports licensed prior to 1st October 1853	- - -	715 10
Miscellaneous:		
Amount of Balances proceeding from the receipt and payment of pilotage of foreign vessels in the Port of London	302 8 10	
Balance of fees received on the issue and renewal of pilotage certificates, and on grant of new licenses and extended qualifications for the Port of London and Channels leading thereto, and at the Outports, after deducting charges	272 19 8	
Fines and penalties	18 8 6	
One year's rent of cliff land at Dover (less Income Tax)	9 12 9	
Balance of fees on choice letters	54 10 –	
		657 19
TOTAL REVENUE		9,803 4
Surplus brought from last Account		969 9 1
TOTAL £.		10,772 14

Trinity House, London,
2 July 1862.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

COUNT.

rinity House, in respect of PILOTS or PILOTAGE, in the Year ending 31st December 1861.
Act 17 & 18 Vict. c. 104.)

EXPENDITURE.

	£. s. d.	£. s. d.
es of carrying the Act into execution:		
laries and allowances to officers in London and at the Cinque Ports - -	1,542 – –	
ationery, stamps, printing, and incidental expenses - - - - - -	307 2 6	
w charges - - - - - - - - - - - - - - -	25 13 6	
Ditto Parliamentary, in relation to "Bristol Channel Pilotage Bill, 1861" -	764 2 8	
		2,638 18 8
ssion on surplus pilotage collected at the Outports - - - - - - -	- - -	1 10 6
s and Allowances:		
superannuated pilots, their wives, widows, and children, and occasional relief o ditto during the year, at London and the Outports (except the Cinque Ports) - - - - - - - - - - - - - - -	4,055 10 8	
ditto at the Cinque Ports, including superannuation allowance to James Wood, formerly clerk in the pilotage station at Dover - - - - - - -	2,045 5 1	
		6,100 15 9
use Establishment:		
nsions and allowances to superannuated pilots, their wives or widows, inhabiting hirteen almshouses at Mile End - - - - - - - - -	561 11 9	
st of repair and maintenance of said houses - - - - - - - -	50 14 –	
		612 5 9
lations:		
st of repair and maintenance of those at Deal, Dover, and the Isle of Thanet - - - -		153 5 –
nts to appointees of Cinque Port pilots on their decease - - - - - - - - -		429 – –
TOTAL EXPENDITURE - - -		9,935 15 8
Surplus carried to next Account - - -		836 18 5
TOTAL - - - £.		10,772 14 1

(E. E.)

P. H. Berthon, Secretary.
John Inglis, Accountant.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND.

LONDON DISTRICT.

NAMES and AGES of PILOTS licensed for the *London* District.

NAMES.	AGES.	LIMITS OF LICENSE.
Butchart, George	50	From London Bridge down the River Thames, and the North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and in and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and in and out of Ramsgate Harbour, and from the Downs to the westward as far as the Isle of Wight, and from the Isle of Wight up to London Bridge; also from Orfordness across the North Sea, and up the Baltic and Gulf of Finland to Cronstadt.
Dumlin, Edward T.	60	
Hindhaugh, William	58	
Irvine, James (1)	61	
Irvine, James (2)	48	
Lowery, Thomas	47	
Moore, Wm. Coates	42	
Reed, Henry	44	
Storey, John Ogilvie	43	
Strachan, Robert	59	
Aston, Edward Onslow	47	From London Bridge down the River Thames, and the North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and in and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and in and out of Ramsgate Harbour, and from the Downs to the westward as far as the Isle of Wight, and from the Isle of Wight up to London Bridge.
Blyth, George	48	
Brack, George	49	
Daines, William	40	
Glandfield, F. W.	48	
Jones, Thomas	50	
Johnson, John	41	
Leigh, Thomas	40	
Martin, Mark	40	
Martin, Thomas	34	
Murray, Ralph	39	
Paton, James	46	
Pidgeon, Edward W.	55	
Small, John	64	
Thompson, George James	58	
Thompson, Charles	48	
Wheeler, Richard	49	
Gray, James	48	From London Bridge down the River Thames, and the North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and into and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and in and out of Ramsgate Harbour; also from Orfordness across the North Sea, and up the Baltic and Gulf of Finland to Cronstadt.
Polson, Peter	43	
Bishop, Thomas Charles	45	From London Bridge down the River Thames, and the North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and in and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and in and out of Ramsgate Harbour; also from Orfordness across the North Sea, and up the Baltic and Gulf of Finland to Cronstadt.
Boxer, Michael	60	
Davie, William	36	
Davison, John	52	
Daff, John Thomas	40	
Emerson, Thomas	73	
Garrick, Thomas	44	
Grove, Joseph Tatton	49	
Hambleton, J. W.	56	
Hardy, James	58	
Hughes, Robert	57	
Huntley, Charles	42	
Kendrick, G. E.	38	
Pentin, J. Dodds	49	
Smith, Joseph Alexander	61	
Speeding, William	43	
Stocks, Thomas	55	
Atkinson, Wm. Francis	55	From London Bridge down the River Thames, and the North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and in and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and in and out of Ramsgate Harbour; and from the Downs to the westward as far as the Isle of Wight, and from the Isle of Wight up to London Bridge.
Bebrouth, John	45	
Bramston, James	42	
Bramston, George	41	
Grant, Andrew	44	
Mumford, Henry B.	53	
Spence, Wm. Alex.	45	
Spurgin, William	42	
Thomas, John	41	
Beech, Thomas Carter	48	From London Bridge down the River Thames, and the North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and in and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and in and out of Ramsgate Harbour; and from the Downs to the westward as far as the Isle of Wight, and from the Isle of Wight up to London Bridge.
Bradley, William	39	
Brown, George West	51	
Cooper, Gerard	41	
Duck, Richard	53	
Maxwell, J. F.	44	
Minter, Thomas	50	
Mowbray, W. Whitby	47	
Mather, Robert	41	
Pentin, Philip Michael	44	
Roxberry, Henry	40	
Smith, Alex. Joseph	60	
Smith, John George	49	
Barfield, W. J.	38	From Gravesend down the River Thames and North, South, and Queen's Channels, and round the Long Sand Head into the Downs, and into and out of Harwich Harbour; also from the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and into Ramsgate Harbour; also from Dungeness through the South Channels to Gravesend.
Burton, Richard Henry	26	
Bennett, John	38	
Banks, Thomas F. A.	39	
Clark, Edward Ollison	39	
Couch, Edward	35	
Dodds, William B.	39	
Fairburn, J.	33	
Fiddemann, Henry	39	
Gray, David	37	
Gray, Joseph	33	
Miller, William	37	
Robson, William	37	
Romley, R. S.	34	
Smith, W. J.	30	
Smith, John	28	
Snelling, W.	35	
Tinn, John	28	

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

NAMES.	AGES.	LIMITS OF LICENSE.
NDON DISTRICT—*cont^d.*		
William R. -	25	From Gravesend down the River Thames and South Channels to Dungeness, and *viceversâ*; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and into Ramsgate Harbour.
C. D. - -	35	
, George - -	54	
W. J. - -	34	
dmund - -	34	
Alfred - -	25	
M. J. - -	38	From Gravesend down the River Thames and the North and South Channels, and round the Long Sand Head into the Downs, and into and out of Harwich Harbour; also for the navigation at the back of the Goodwin Sands, round the South Sand Head into the Downs, and into Ramsgate Harbour; also from the Downs westward as far as the Isle of Wight, and from the Isle of Wight to Gravesend.
James Thomas -	39	
Francis - -	35	
y, R. G. - -	28	
, Edward - -	38	
, Oswald Theo. -	35	From Gravesend down the River Thames and the North Channel to Orfordness, and in and out of Harwich Harbour.
on, William -	37	
on, J. T. - -	35	
, Alice, *alias* Amos	36	
on, R. Christopher	53	From London Bridge down the River Thames to Gravesend, and back to London Bridge.
, John - -	51	
field, James -	64	
field, James, jun.	37	
field, William -	67	
field, George -	42	
field, Charles -	30	
ey, John Thomas -	43	
y, J. - - -	34	
, Joseph R. -	33	
ant, Amos - -	45	
nan, Edward -	40	
Thomas Allen -	61	
, James - -	67	
n, John - -	45	
Charles - -	49	
t, George - -	55	
son, Charles Thos.	45	
st, Richard William	51	
rgill, William T. -	32	
nan, William -	47	
t, Alfred - -	34	
ey, Daniel - -	50	
ey, George - -	49	
ey, Thomas - -	41	
ey, John - -	48	
lerson, William -	52	
lerson, John - -	58	
on, James William	52	
ghton, E. - -	52	
phreys, W. H. -	44	
William Henry -	43	
Thomas Charles -	46	

NAMES.	AGES.	LIMITS OF LICENSE.
LONDON DISTRICT—*cont^d.*		
Jackson, David - -	60	From London Bridge down the River Thames to Gravesend, and back to London Bridge.
Jameson, Henry - -	48	
Joel, William - -	44	
Kindred, James - -	41	
Larnder, George Ralph -	35	
Lawson, James - -	47	
Lygo, Richard - -	42	
Martin, John Berdo -	37	
Martin, Joseph (1) -	44	
Martin, Joseph (2) -	35	
Mee, Alfred Thomas -	32	
Pascoe, William Williams	52	
Pattison, John - -	52	
Pattison, Frederick -	40	
Posgate, Richard Bonner	48	
Rae, Thomas Wotten -	46	
Ramshaw, Geo. Prissick	53	
Ross, Richard Varney -	47	
Ross, Alexander Douglas	41	
Roxberry, Thomas -	49	
Sandford, William -	43	
Speedy, John - -	56	
Spiers, Stephen Joseph -	51	
Stratford, Charles - -	44	
Stibbs, Edward J. -	38	
Tonge, G. W. B. - -	40	
Tadhunter, James Thos. -	33	
Walker, James Coombe	56	
Walker, J. Coombe, jun.	—	
Walker, John - -	52	
Warner, Charles - -	63	
Warner, John - -	38	
West, Thomas - -	52	
Williams, William -	48	
Williams, T. J. - -	46	
Williams, Edwin - -	46	
Williams, Henry - -	41	
Walden, Joseph - -	35	
Allen, Benjamin - -	43	From London Bridge down the River Thames to Gravesend, and back to London Bridge. (Licensed for Home Trade Passenger Ships only.)
Allen, W. George -	34	
Allen, Edward J. - -	28	
Coe, William Henry -	58	
Doust, John Charles -	56	
Evans, John - -	66	
Evans, William Edmund	37	
Ferguson, John P. -	51	
Hambleton, James -	49	
Liley, Edmund - -	40	
M'Donald, Edward -	56	
Petrie, George Alexander	38	
Rodway, Richard - -	42	
Smith, Charles Thomas -	45	
Smith, John Thomas -	58	
Swettenham, George -	39	
Stone, George - -	36	
Turner, Richard - -	48	
Voss, James - - -	54	
Voss, John Edward -	47	
Wall, Francis - -	65	
Watson, Frederick -	47	

Corporation of Trinity House of Deptford Strond—*continued.*

NAMES.	AGES.	LIMITS OF LICENSE.
London District—*cont^d.*		
Anderson, W. Redman	35	
Apps, J. E.	35	
Arnold, John William	32	
Arnold, R. J.	27	
Atkins, Robert	62	
Apps, James Richard	36	
Baker, John	47	
Barber, William	38	
Beck, William Alfred	32	
Bell, William Thomas	37	
Bell, George William	36	
Birch, Thomas	56	
Bingham, H. V.	33	
Blown, Thomas Cartle	54	
Bowles, W. J.	41	
Bristow, H. J. S.	44	
Burton, Aaron	55	
Burden, John	32	
Bingham, T. J.	39	
Bingham, J. H.	41	
Canney, T. Thompson	43	
Clark, Werter	69	
Collard, W. R.	52	
Crowhurst, George H.	31	
Charrosin, William	37	
Dair, Thomas	58	
Dane, Samuel	48	
Decent, Peter	59	
Elgar, William Spratt	44	From Dungeness up the River Thames to Gravesend, and up the River Medway to Stangate Creek, and from the South Buoy of the Brake to the westward as far as the west end of the Owers, and into and out of Ramsgate, Dover, Sandwich, and Margate Harbours.
Empson, Thomas	34	
Finnis, J. S.	34	
Finnis, Robert	40	
Finnis, W. J.	30	
Foster, Henry	35	
Foreman, Richard	35	
Fuller, William	59	
Gasson, James	44	
Gasson, H. W.	30	
Gillman, C. Brown	43	
Godden, J. Astell	45	
Goldsack, D. M'Donald	39	
Gosley, J. Morehouse	47	
Gravener, T. H.	51	
Hambrook, Joseph	49	
Hart, John	35	
Hartley, Joseph Henry	34	
Hayward, William	53	
Hill, Andrew	60	
Hinds, Charles Clayson	44	
Hobday, Stephen	57	
Holmes, James	40	
Hoult, Alfred	39	
Hubbard, James Little	49	
Howgego, John	30	
Jeffrey, Thomas	44	
Jones, James Crowhurst	47	
Keys, Daniel Peake	42	
Keys, Samuel H.	45	
Knocker, William	35	
Langford, Robert	37	
Larkins, Joseph Alex.	43	
Larkins, Richard	40	
Lucas, Charles Kidman	48	

NAMES.	AGES.	LIMITS OF LICENSE.
London District—*cont^d.*		
Mackie, Thomas Pile	45	
Mackie, W. B., jun.	30	
Mackie, Joseph Sabine	28	
Mallett, J. C.	45	
Marsh, R. N.	35	
Marsh, W. A. Y.	33	
Marsh, H. Finnis	27	
Marshall, John	40	
May, Robert Formage	44	
Millen, J. Bullock	35	
Millen, H. E.	33	
Mills, Benjamin	43	
Mongor, William	36	
Moon, Richard	58	
Moon, George W.	35	
Moulton, Morris	52	
Mowll, Richard (3)	47	
Mowle, Thomas Ralph	53	
Myhill, Valentine C.	34	
Newton, James	45	
Norris, James	41	
Norris, Stephen	43	
Norris, Thomas Dixon	53	
Norris, Tom	51	
Olifent, John Elwin	34	
Pain, John	70	
Palmer, George	49	
Paul, Thomas W.	50	
Peake, Allen Marsh	44	
Peake, Robert	61	From Dungeness up the Thames to Gravesend a the River Medway to St. Creek, and from the South of the Brake to the westw far as the west end of the O and into and out of Ram Dover, Sandwich, and M Harbours.
Pembroke, J. Silvester	38	
Pett, H. Callon	46	
Popkiss, William	53	
Popkiss, H. Peter	39	
Popkiss, H. Paul	29	
Pordige, Robert	59	
Pott, William S.	55	
Pott, John James	29	
Pott, W. H.	28	
Prescott, W. G.	44	
Ralph, George	41	
Ralph, Thomas	48	
Randall, John	57	
Randall, John Sutton	30	
Ransom, William	35	
Rouse, Thomas B.	—	
Sackett, Benjamin W.	55	
Sclater, H. Valentine	44	
Smith, J. Valentine W.	33	
Spouse, William	37	
Stanton, William Henry	57	
Stanton, William	35	
Thornton, William	38	
Trott, Arthur	44	
Usher, James Walker	49	
Warman, W. Bayley	46	
Waters, Alfred J.	41	
Watson, Alexander	42	
West, George Barrow	38	
Wellard, Morris	62	
Warner, Frederick	30	
Wrake, James H.	37	

Corporation of Trinity House of Deptford Strond—*continued.*

NAMES.	AGES.	LIMITS OF LICENSE.
DON District—*cont*^{d}.		
S. N. - -	63	From Dungeness up the River Thames to London Bridge, and up the River Medway to Stangate Creek, and from the South Buoy of the Brake to the westward as far as the west end of the Owers, and into and out of Ramsgate, Dover, Sandwich, and Margate Harbours.
ichard (2) -	70	
Daniel B. -	58	From Orfordness up the North Channel and the River Thames to London Bridge, and in and out of Harwich Harbour.
John - -	28	From Orfordness up the North Channel and the River Thames to Gravesend, and in and out of Harwich Harbour.
James - -	44	
ohn - -	36	
Thos. Williams	33	
dward - -	52	From Lowestoft or its parallel of latitude to Orfordness, thence up the North Channel and River Thames to London Bridge, and in and out of Harwich Harbour.
Jas. Stebbings -	50	
n, David - -	70	
William J. -	41	From Lowestoft or its parallel of latitude to Orfordness, thence up the North Channel and River Thames to Gravesend, and in and out of Harwich Harbour.
illiam - -	51	
n, Robert Wm.	42	
George - -	44	
on, William -	50	
Daniel - -	64	From Southwold or its parallel of latitude to Orfordness, thence up the North Channel and River Thames to London Bridge, and in and out of Harwich Harbour.
mes - -	71	
Joseph - -	55	
illiam - -	41	From Southwold or its parallel of latitude to Orfordness, thence up the North Channel and River Thames to Gravesend, and in and out of Harwich Harbour.
eorge - -	35	
Henry Beverley	74	From Yarmouth to and from the Dudgeon Light Vessel, and from Yarmouth to and from Orfordness, thence across the Kentish Knock to and from the Downs, and up the North Channel and River Thames to London Bridge, and into and out of Harwich Harbour.
William - -	62	

NAMES.	AGES.	LIMITS OF LICENSE.
London District—*cont*^{d}.		
Lowsey, John - -	63	From Smith's Knowl or its parallel of latitude to Orfordness, thence up the North Channel and River Thames to London Bridge, and into and out of Harwich Harbour.
Black, John - -	51	From Yarmouth to and from the Dudgeon Light Vessel, and from Yarmouth to and from Orfordness, thence across the Kentish Knock to and from the Downs, and up the North Channel and River Thames to Gravesend, and into and out of Harwich Harbour.
Boult, James Clark -	51	
Bowell, John - -	54	
Devereux, Edward -	57	
Fleming, Samuel - -	59	
Fleming, William - -	46	
Fulcher, James - -	55	
Hobson, Thomas - -	35	
Jenner, Charles - -	55	
Leggett, Henry - -	35	
Leggett, Edward - -	51	
Leggett, Thomas - -	41	
Lindsey, Thomas - -	55	
Lindsey, Samuel - -	51	
Littlewood, M. Foster -	56	
Reéder, William - -	58	
Rising, Thomas - -	55	
Rouse, Royal - -	57	
Rust, William - -	35	
Rust, Burnham - -	30	
Stanford, Joseph - -	40	
Tansley, Isaiah - -	44	
Woods, William - -	59	
Aldrich, William, jun. -	52	From Smith's Knowl or its parallel of latitude to Orfordness, thence up the North Channel and River Thames to Gravesend, and into and out of Harwich Harbour.
Bokenham, John - -	50	
Button, George - -	34	
Girling, W. Andrew -	39	
Land, William - -	52	
May, J. C. - - -	29	
May, W. D. - - -	32	
Munnings, John - -	26	
Reeve, Thomas - -	50	
Simpson, William - -	54	
Taylor, Edward - -	50	
Warnes, William - -	40	

RATES of PILOTAGE for the *London* District.

The Rates remain the same as printed at pp. 141–7 of Parl. Paper, No. 516 of 1855.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

AMOUNT received for PILOTAGE of VESSEL

(1.)—INWARDS.

DISTANCES FOR WHICH PILOTED.	BRITISH VESSELS.							
	COASTERS.				OVERSEA.			
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s.
From Sea, Orfordness, or Downs, to Nore or Warps.	–	- -	–	- -	–	- -	–	-
From Sea, Orfordness, Downs, or Hoseley Bay, to Gravesend, Chatham, Stangate Creek, or Blackstakes.	4	37 16 3	6	33 11 2	568	4,172 19 1	2,228	18,722 15
From Sea, Orfordness, Downs, or Hoseley Bay, to Woolwich or Blackwall.	–	- -	1	7 18 3	1	10 17 6	–	-
From Sea, Orfordness, Downs, or Hoseley Bay, to Moorings, London Docks, City Canal, or St. Katherine's Docks.	–	- -	–	- -	–	- -	2	19 2
From Gravesend Reach to Long Reach	1	2 18 –	–	- -	2	2 10 6	2	4 7
From Gravesend Reach to Woolwich or Blackwall.	2	3 2 –	16	35 17 6	45	103 17 4	1,059	3,094 1
From Gravesend Reach to Moorings, London Docks, City Canal, or St. Katherine's Docks.	–	- -	983	1,672 16 3	113	292 – 8	2,245	5,620 14
From Long Reach to Woolwich or Blackwall.	–	- -	–	- -	–	- -	3	6 17
From Woolwich or Blackwall to Moorings, London Docks, City Canal, or St. Katherine's Docks.	–	- -	–	- -	–	- -	–	-
From off Dungeness to Downs - -	3	9 5 –	1	3 3 –	1,842	6,222 6 3	87	340 12
From off Dungeness to North Foreland.	–	- -	–	- -	–	- -	–	-
From off Folkestone and Dover to Downs.	1	2 5 –	–	- -	359	724 16 6	35	97 8
From off South Foreland and Deal Shore to Downs.	1	1 16 –	–	- -	256	431 16 6	14	26 17
From Dudgeon Parallel and Lemon to Orfordness.	–	- -	–	- -	–	- -	–	-
From Yarmouth, Lowestoft, and Smith's Knowl, to Orfordness.	–	- -	1	1 5 –	6	13 15 –	2	5 –
From Southwold to Orfordness - -	–	- -	–	- -	6	9 – –	1	– 17
From Isle of Wight to Downs - -	–	- -	1	7 11 –	–	- -	–	-
From Sea to Ramsgate Harbour -	1	2 – –	–	- -	–	- -	–	-
Lay days, Docking, Shifting, Berth, &c.	12	16 13 –	–	- -	26	27 17 –	–	-
TOTAL - - -	–	75 15 3	–	1,762 2 2	–	12,011 16 4	–	27,938 13

VESSELS CHANGING AT GRAVESEND.

	Number of Vessels
Amount paid by Vessels which have to take or pay for two or more Pilots	5,216 4,555

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

nd Out of the Port of *London*, in 1861.

- - - - - - - - (1.)—INWARDS.

FOREIGN VESSELS.								TOTALS.	
PRIVILEGED.				UNPRIVILEGED.					
owed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
Amount.		No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
£. s. d.			£. s. d.		£. s. d.		£. s. d.		£. s. d.
58 11 1		–	- -	–	- -	–	- -	9	58 11 1
11,976 5 1		1,334	12,188 2 3	11	106 15 8	17	153 17 1	5,518	47,392 2 6
- -		–	- -	–	- -	–	- -	2	18 15 9
9 13 3		2	26 17 5	–	- -	–	- -	5	55 12 8
- -		4	16 14 –	–	- -	–	- -	9	26 9 6
697 9 3		339	1,047 9 5	–	- -	5	18 12 6	1,765	5,000 9 2
2,826 16 3		1,564	4,941 4 4	11	40 13 9	12	34 – –	5,795	15,428 6 2
- -		4	18 14 9	–	- -	–	- -	7	25 12 –
- -		1	– 17 9	–	- -	–	- -	1	– 17 9
3,019 13 –		29	112 19 –	12	37 13 9	–	- -	2,825	9,745 12 –
- -		1	6 19 –	–	- -	–	- -	1	6 19 –
387 18 –		19	47 4 –	4	9 – –	1	4 14 6	592	1,273 6 6
308 14 6		12	17 14 –	8	12 7 6	–	- -	495	799 5 6
73 15 –		–	- -	–	- -	–	- -	12	73 15 –
1,187 12 6		9	25 – –	–	- -	–	- -	418	1,232 12 6
436 13 –		14	22 15 –	–	- -	–	- -	356	469 5 6
- -		–	- -	–	- -	–	- -	1	7 11 –
- -		–	- -	–	- -	–	- -	1	2 – –
27 9 3		2	8 8 –	–	- -	–	- -	58	80 7 3
21,010 10 2		–	18,480 18 11	–	206 10 8	–	211 4 1	–	81,697 10 10

- - - - - - - - VESSELS CHANGING AT GRAVESEND.

AMOUNT.		
For Pilotage low Gravesend.	For Pilotage above Gravesend.	TOTAL.
£. s. d.	£. s. d.	£. s. d.
9,533 16 3	- - - -	73,542 17 2
- - -	14,009 – 11	

Corporation of Trinity House of Deptford Strond—*continued.*

(2.)—OUTWARDS.

DISTANCES FOR WHICH PILOTED.	BRITISH VESSELS.							
	COASTERS.				OVERSEA.			
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount
		£. s. d.		£. s. d.		£. s. d.		£. s.
From Gravesend, Chatham, Stangate Creek, or Blackstakes to Sea, Orfordness, Downs, or Hoseley Bay.	98	565 1 11	23	148 6 5	285	1,988 18 –	246	1,973 5
From Long Reach to Sea, Orfordness, Downs, or Hoseley Bay.	–	- -	2	14 8 9	–	- -	3	23 14
From Woolwich or Blackwall to Sea, Orfordness, Downs, or Hoseley Bay.	3	20 16 7	11	84 1 9	31	263 2 3	640	6,804 17
From London Docks, City Canal, and St. Katherine's Docks to Sea, Orfordness, Downs, or Hoseley Bay.	2	15 – –	11	87 1 10	16	132 4 7	736	6,955 15
From Gravesend to Nore or Warps -	–	- -	1	5 5 –	–	- -	–	-
From Woolwich or Blackwall to Nore	–	- -	–	- -	–	- -	–	-
From Long Reach to Gravesend Reach	–	- -	–	- -	1	– 15 6	1	1 –
From Woolwich or Blackwall to Gravesend Reach.	5	7 14 9	9	20 6 2	53	99 8 3	130	329 8
From Moorings, London Docks, City Canal, and St. Katherine's Docks to Gravesend Reach.	6	12 8 –	989	1,676 7 2	22	64 7 9	758	1,411 6
From London Docks to Woolwich or Blackwall.	–	- -	–	- -	–	- -	–	-
From Downs to Dungeness - -	–	- -	–	- -	3	25 – –	–	-
From Downs to Isle of Wight - -	2	16 4 –	–	- -	201	2,155 6 –	7	83 6
From Isle of Wight to Start - - -	–	- -	–	- -	3	30 – –	1	12 –
From Isle of Wight to Plymouth -	–	- -	–	- -	1	11 – –	1	14 –
Distance Money - - - - -	–	- -	–	- -	1	10 – –	–	-
Total - - -	–	637 5 3	–	2,035 17 1	–	4,780 2 4	–	17,608 1

Vessels changing at Gravesend.

	Numbe of Vess
Amount paid by Vessels which have to take or pay for two or more Pilots - - - - - - - - - - - - - -	1,13 1,38

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

(2.)—OUTWARDS.

FOREIGN VESSELS.																	
PRIVILEGED.						UNPRIVILEGED.						TOTALS.					
owed by Steam.			Towed by Steam.			Not Towed by Steam.			Towed by Steam.								
Amount.			No.	Amount.		No.	Amount.		No.	Amount.		No.	Amount.				
£.	s.	d.		£.	s.	d.	£.	s.	d.	£.	s.	d.		£.	s.	d.	
5,410	5	2	374	2,099	16	7	1	8	15	6	1	8	12	2	1,856	12,203	– 10
-	-		–	-	-		–	-	-		–	-	-		5	38	3 1
396	16	10	126	1,188	18	7	–	-	-		–	-	-		863	8,758	13 6
1,298	3	2	491	4,433	16	3	–	-	-		1	11	5	6	1,408	12,933	7 3
5	13	6	2	3	14	–	–	-	-		–	-	-		6	14	12 6
3	6	–	–	-	-		–	-	-		–	-	-		1	3	6 –
9	9	–	1	8	–	–	1	1	14	–	–	-	-		11	20	18 6
430	6	4	109	197	2	7	–	-	-		–	-	-		551	1,084	6 3
433	4	9	528	1,020	16	10	–	-	-		1	3	6	–	2,486	4,621	15 7
2	–	6	–	-	-		–	-	-		–	-	-		1	2	– 6
6	–	–	–	-	-		–	-	-		–	-	-		4	31	– –
802	9	10	1	6	1	–	–	-	-		–	-	-		304	3,063	7 4
-	-		–		-		–	-	-		–	-	-		4	42	– –
21	–	–	1	10	–	–	–	-	-		–	-	-		4	56	– –
10	–	–	1	10	–	–	–	-	-		–	-	-		3	30	– –
8,828	15	1	–	8,978	5	10	–	10	9	6	–	23	3	8	–	42,902	11 4

VESSELS CHANGING AT GRAVESEND.

AMOUNT.								
r Pilotage Gravesend.			For Pilotage below Gravesend.			TOTAL.		
-	s.	d.	£.	s.	d.	£.	s.	d.
806	10	9	-	-	-	11,543	18	7
-	-		9,237	7	19			

Note.—In this Return the number of vessels (both Inward and Outward) has not been totalled, because in very many instances pilotage service has been rendered to the same vessel for more than one of the distances specified and provided for in the Scale of Rates.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

OUTPORT DISTRICTS.

General Remark.—As regards the returns specifying the amounts received for Pilotage at the Trinity House Outports, it is to be observed that the of Vessels has not, in all cases, been totalled, because in many instances Pilotage Service has been rendered to the same Vessel for more than or Distances specified, and provided for in the Scale of Rates.

ABERDOVEY.

NAMES of PILOTS.

Lewis Lewis - - - aged 41 | Thomas Jones - - - aged 31.

RATES.

The Rates of Pilotage are the same as printed at p. 22 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.	TOTAL	
	COASTERS. Not Towed by Steam.		OVERSEA. Not Towed by Steam.				
	No.	Amount.	No.	Amount.		No.	Amo
		£. s. d.		£. s. d.			£.
From Sea to Harbour -	138	68 4 6	2	5 – –	- - nil - -	140	73

(2.)—OUTWARDS.

From Harbour to Sea -	146	62 17 6	3	4 5 –	- - nil - -	149	67

BEAUMARIS.

NAMES of PILOTS.

Humphrey Jones - aged 54
William Jones - - 53
John Williams - - 37
Owen Roberts - - 35
Robert Roberts - - 30

Limits of License.—From Bangor to a line drawn from Great Orm's Head to Point Lynas, and *vice versâ*, and to and from and into and out of all ports and places within those limits.

John Hughes - - aged 66
John Jones - - - 46
John Edwards - - 60
John Roberts - - - 45
Hugh Jones - - - 69
Thomas Jones - - 38
Solomon Hughes - - 28
William Roberts - - 36
William Hughes - - 32

Limits of License.—F Dinorwic, or Moel-y-dor the Swellies to Cadnant, *versâ*; and into and out o and places within those li

RATES.

The Rates of Pilotage are the same as printed at pp. 23 and 24 of Parl. Paper, No. 516 of 1855.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—BEAUMARIS—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
outside the Beaumaris nway and	8	8 16 -	26	17 12 -	5	18 14 -	18	75 2 6	7	13 7 6	3	10 7 9	nil -	67	143 19 9
(inside the Beaumaris nway and	1	1 - -	2	2 17 6	3	7 4 -	-	- -	4	5 3 9	1	1 - -	-	11	17 5 3
Dinorwic nt.	554	142 17 6	2	- 11 6	3	- 18 -	1	- 8 3	-	- -	-	- -	-	560	144 15 3
narvon to	2	- 19 -	2	- 12 -	-	- -	-	- -	-	- -	-	- -	-	4	1 11 -
AL - - -	-	153 12 6	-	21 13 -	-	26 16 -	-	75 10 9	-	18 11 3	-	11 7 9	-	642	307 11 3

(2.)—OUTWARDS.

maris Bay, and Bangor,	4	5 13 3	27	15 10 6	9	11 6 6	10	25 6 6	10	15 16 9	3	11 11 3	nil -	63	85 4 9
nant to Port c.	521	138 5 3	4	1 14 9	1	- 14 3	3	1 16 -	-	- -	1	- 12 -	-	530	143 2 3
nant to Caer-	1	- 9 -	5	2 17 -	-	- -	-	- -	-	- -	-	- -	-	6	3 6 -
AL - - -	-	144 7 6	-	20 2 3	-	12 - 9	-	27 2 6	-	15 16 9	-	12 3 3	-	599	231 13 -

BRIDGWATER.

NAMES of PILOTS.

sons mentioned at p. 13 of Parl. Paper, No. 243 of 1861, are still acting, with the addition of Benjamin Griffith, aged 34.

RATES.

The Rates of Pilotage are the same as printed at p. 25 of Parl. Paper, No. 516 of 1855.

Corporation of Trinity House of Deptford Strond—Bridgwater—*continued.*

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTAL	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£.
From Limits or Gore to Highbridge.	5	3 15 6	1	– 6 7½	–	– – –	–	– – –	–	– – –	–	– – –	nil	6	4
From Limits or Gore to Combwich.	2	1 5 –	1	– 6 6	1	3 5 –	7	22 17 6	–	– – –	3	8 3 6	–	14	35
From Limits or Gore to Burnham.	–	– – –	2	– 16 –	–	– – –	15	11 5 –	–	– – –	–	– – –	–	17	12
From Limits or Gore to Dunball.	3	1 6 –	1	– 6 7½	–	– – –	–	– – –	–	– – –	–	– – –	–	4	1
From Limits or Gore to Bridgwater.	90	59 7 –	41	21 10 6½	6	11 2 1	12	22 5 3	6	17 6 –	13	13 10 10½	–	161	145
From Burnham to Dunball.	13	3 15 –	1	– 4 1½	–	– – –	–	– – –	–	– – –	–	– – –	–	14	3
From Burnham to Highbridge.	6	2 5 6	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	6	2
From Burnham to Combwich.	–	– – –	1	– 4 1½	–	– – –	–	– – –	–	– – –	–	– – –	–	1	–
From Burnham to Paulett	–	– – –	1	– 4 10½	–	– – –	–	– – –	–	– – –	–	– – –	–	1	–
From Burnham to Bridgwater.	1,094	327 – 9	338	81 18 6	1	– 10 –	–	– – –	–	– – –	–	– – –	–	1,433	409
From Combwich to Bridgwater.	–	– – –	1	– 6 4½	–	– – –	–	– – –	–	– – –	–	– – –	–	1	–
From Black Rock to Bridgwater.	6	1 15 –	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	6	1
TOTAL - - -	–	400 9 9	–	106 4 3½	–	14 17 1	–	56 7 9	–	17 6 –	–	21 14 4½	–	–	616

(2.)—OUTWARDS.

From Bridgwater to Black Rock.	1	– 6 6	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	nil	1	–
From Bridgwater to Paulett.	–	– – –	2	– 11 3	–	– – –	–	– – –	–	– – –	–	– – –	–	2	–
From Bridgwater to Dunball.	1	– 5 6	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	1	–
From Bridgwater to Burnham.	296	90 1 –	135	37 5 3½	–	– – –	1	1 18 3	–	– – –	–	– – –	–	432	129
From Bridgwater to Limits or Gore.	43	34 7 3	38	26 16 9½	5	12 19 8	5	11 6 9	7	13 19 –	9	19 – 2½	–	107	118
From Paulett to Burnham.	5	1 14 6	3	– 16 10½	–	– – –	–	– – –	–	– – –	–	– – –	–	8	2
From Combwich to Burnham.	1	– 8 6	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	1	–
From Burnham to Limits	–	– – –	5	3 8 –	–	– – –	15	11 5 –	–	– – –	–	– – –	–	20	14
From Paulett to Limits -	2	1 7 6	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	2	1
From Combwich to Limits	–	– – –	3	9 2 3	–	– – –	4	12 19 –	1	3 6 –	–	– – –	–	8	25
From Highbridge to Burnham.	5	1 13 6	1	– 4 10	–	– – –	–	– – –	–	– – –	–	– – –	–	6	1
From Dunball to Burnham.	10	3 1 11	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	10	3
TOTAL - - -	–	133 6 2	–	78 5 3½	–	12 19 8	–	37 9 –	–	17 5 –	–	19 – 2½	–	–	298

BRIDPORT.

NAMES of PILOTS.

The Persons mentioned at p. 14 of Parl. Paper, No. 243 of 1861, are still acting.

RATES.

The Rates of Pilotage are the same as printed at p. 26 of Parl. Paper, No. 516 of 1855.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—BRIDPORT—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	Not Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.					
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s. d.
to Harbour - -	93	48 5 -	7	10 19 6	6	8 8 6	- - nil - -		106	67 13 -

(2.)—OUTWARDS.

rbour to Sea - -	100	37 1 6	3	3 12 6	5	4 - 9	- - nil - -		108	44 14 9

CAERNARVON.

NAMES of PILOTS.

The Persons mentioned at p. 15 of Parl. Paper, No. 243 of 1861, are still acting.

RATES.

The Rates of Pilotage are the same as printed at p. 27 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

TANCES for which LOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
ter Buoy or Bar rnarvon.	35	19 1 -	-	- - -	1	- 17 -	3	3 3 -	-	- - -	-	- - -	-	39	23 1 -
ort Dinorwic to rvon.	2	2 6 -	-	- - -	-	- - -	1	- 11 -	1	- 9 -	-	- - -	-	4	3 6 -
ort Dinorwic to Buoy or Bar.	15	13 13 6	3	1 16 -	2	2 4 -	1	1 2 -	-	- - -	-	- - -	-	21	18 15 6
TOTAL - - -	-	35 - 6	-	1 16 -	-	3 1 -	-	4 16 -	-	- 9 -	-	- -	-	64	45 2 6

(2.)—OUTWARDS.

ernarvon to Bar er Buoy.	170	126 7 6	2	1 10 -	10	9 10 6	4	4 3 6	1	1 - -	2	1 12 -	-	189	144 3 6
ernarvon to Port wic.	2	1 2 -	2	- 9 -	-	- - -	-	- - -	-		-	- - -	-	4	1 11 -
ter Buoy or Bar t Dinorwic.	26	18 - 6	1	1 - -	-	- - -	-	- - -	-	-	-	- - -	-	27	19 - 6
TOTAL - - -	-	145 10 -	-	2 19 -	-	9 10 6	-	4 3 6	-	1 - -	-	1 12 -	-	220	164 15 -

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

CARLISLE.

NAME of PILOT.

George Rule - - - - - - aged 44.

RATES.

The Rates of Pilotage are the same as printed at p. 28 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTALS	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	Not Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amou
		£. s. d.		£. s. d.		£. s. d.			£. s.
From Maryport to Silloth -	2	1 8 -	8	8 4 5	4	4 17 1	- - nil - -	14	14 9
From Maryport to Carlisle -	5	7 - -	1	1 8 -	-	- -	- - - -	6	8 8
From Maryport to Annan -	7	12 10 3	-	- -	-	- -	- - - -	7	12 10
TOTAL - - -	-	20 18 3	-	9 12 5	-	4 17 1	- - - -	27	35 7

(2.)—OUTWARDS.

From Silloth to Maryport -	3	2 18 7	2	2 1 1	3	3 1 2	- - nil - -	8	8 -
From Carlisle to Maryport -	1	1 18 6	-	- -	-	- -	- - - -	1	1 18
From Annan to Maryport -	1	1 8 -	-	- -	-	- -	- - - -	1	1 8
TOTAL - - -	-	6 5 1	-	2 1 1	-	3 1 2	- - - -	10	11 7

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

COLCHESTER.

NAMES of PILOTS.

John Howard - - - aged 48
George Harvey - - - - 29
Stephen Harvey - - - - 32

Limits of License.—From a line drawn from the Naze Tower to the Buoy of the Gunfleet up the Colne River to Colchester.

RATES.

The Rates of Pilotage are the same as printed at p. 29 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	Not Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.					
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s. d.
Gunfleet to Wivenhoe -	45	34 16 6	1	- 12 -	9	11 7 3	-	nil -	54	46 15 9
Gunfleet to Colchester -	4	3 8 -	1	- 12 -	5	6 5 3	-	- -	10	10 5 3
Colne Point and Bar to Ithoe.	17	13 2 -	-	- -	2	2 13 -	-	- -	19	15 15 -
Eastness to Wivenhoe -	1	1 12 6	-	- -	-	- -	-	- -	1	1 12 6
Harwich to Wivenhoe -	1	4 2 6	-	- -	-	- -	-	- -	1	4 2 6
Foordness to Eastness -	-	- -	-	- -	1	6 - -	-	- -	1	6 - -
Foordness to Colne Point	-	- -	-	- -	1	5 5 9	-	- -	1	5 5 9
Foordness to Brightlesea	-	- -	-	- -	1	6 - -	-	- -	1	6 - -
Money - - -	-	- -	-	- -	3	14 9 10	-	- -	3	14 9 10
TOTAL - - -	-	57 1 6	-	1 4 -	-	52 1 1	-	- -	-	110 6 7

(2.)—OUTWARDS.

Wivenhoe to Pyefleet -	45	30 11 -	1	- 15 -	3	3 2 3	-	nil -	49	34 8 3
Colchester to Pyefleet -	2	1 11 6	-	- -	6	6 17 3	-	- -	8	8 8 9
Wivenhoe to Colne Point	18	11 8 -	-	- -	2	2 13 -	-	- -	20	14 1 -
Wivenhoe to Eastness -	2	3 - -	1	1 10 -	1	1 4 9	-	- -	4	5 14 9
Pyefleet to Sunk - -	-	- -	-	- -	1	2 12 6	-	- -	1	2 12 6
Wivenhoe to Sunk - -	-	- -	3	9 11 6	6	18 7 6	-	- -	9	27 19 -
Money - - -	-	- -	-	- -	1	3 - -	-	- -	1	3 - -
TOTAL - - -	-	46 10 6	-	11 16 6	-	37 17 3	-	- -	-	96 4 3

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

COWES AND PORTSMOUTH DISTRICTS.

NAMES of PILOTS.

COWES.

*Daniel Corke -	aged	69	George Caws -	aged	55	Alfred R. Caws -	aged	31
James Snook - -		75	Jonas Denham - -		52	Daniel Corke, jun. -		37
*George Greenham -		68	Henry Page - -		48	Nicholas Love - -		30
Francis Harrison -		66	Robert Caws Greenham		38	Albert Caws - -		46
Robert Hookey -		68	George Henry Wakeley		34	Josiah A. Caws -		38
William Ballard -		70	Alfred J. Newman -		34	Samuel Matthews -		32
William Love - -		62	Charles Dyer - -		38	Edw. Wheeler Webb -		41
*Robert Newman -		64	Albert Davis - -		35	William Webb - -		51
Thomas Davies -		77	Charles Bright - -		59	James Webb - -		49
*John Wallis - -		67	George H. Keates -		31	Edward H. Osborne -		32
*Thomas Harvey -		71	Edward F. Love -		35	Thomas Keates - -		30
George Greenham, jun.		41	Charles D. Harvey -		34	John Wearn - -		25
James Matthews -		64	James Osmond - -		30	James Corke - -		67
Jas. Wheeler Andrew		47	John Steward - -		48	Frederick Caws -		46
John William Wallis		35	Charles Bright, jun. -		37	Richard Denham -		41

Limits of License.—To a from the Owers eastward with the Isle of Wight to Peveril we ward; to and from those lin to all places and ports within Isle of Wight; and in and out St. Helen's, Spithead, Por mouth Harbour, Stokes Bay, N therbank, Southampton Wat Cowes Roads and Harbour, Y mouth, Lymington, the Need and Christchurch, and to from each of those ports places.

Jacob Long -	aged	45				W. Dempster Murray,	aged	59
Cornelius Underwood		62				Henry Alston - -		44
George Warder -		52						

Limits of License.—From St. Helen's within the Isle of Wight, to 3 miles outside or to seaward of the Needles Rocks, and to and from and into and out of all ports and places within those limits.

Limits of License.—From Solent to Lymington and *versâ*, and from St. Helen's wi the Isle of Wight to the Need and to and from and into and of all ports and places wi those limits.

*** Those marked thus * are further licensed from the meridian of the Start.**

PORTSMOUTH.

*Henry M'Dougall	aged	58	Joseph Burnett	aged	50	Henry Caws -	aged	56
*James Cook - -		55	*John Jones - -		66	Edmund Plaws - -		54
Daniel Morgan -		61	James George Gill -		55	John Gawn - -		33
John Coote - -		70	James Greenham -		53	Silas H. Caws - -		49
Waller Caws - -		55	James Midlane -		58	William Coote - -		38
Charles Cook - -		54	Charles Wearn -		53	Thomas Buxey - -		44
Anthony Th. Davis -		46	Geo. Chissell Caws -		50	Henry Knapp - -		32
*John Harding - -		67	Emanuel Wade -		56	Jesse Proctor - -		38
David Newman -		62	Thomas Cook - -		53	Edward Main - -		34
Benjamin B. Alford		69	Joseph Harding -		38	William Main - -		32
Robert H. Sweetman		52	*George Richards -		47	George James Main -		31
*John Main - -		51	Wm. Henry Barron		47	Richard Craft - -		51
*Henry Gill - -		55	George Austin - -		46	George Coote - -		32
Ashford Caws - -		53	John Coote, jun. -		46			

Limits of License.—To from the Owers, eastward v out the Isle of Wight to Pe westward; to and from t limits to all places and within the Isle of Wight, ex the harbours of Chichester Langstone; and in and out c Helen's, Spithead, Portsm Harbour, Stokes Bay, Mo bank, Southampton Water, C Roads and Harbour, Yarmc Lymington, and the Nee and to and from each of t ports and places.

Joseph Clark -	aged	51	John Miller -	aged	52	John Barter -	aged	36
William Miller - -			Isaac Barnett - -		63			
Alfred Turner - -		45	George Miller - -		37	James Cribb - -		35

Limits of License.—To from the Owers, eastward w the Isle of Wight to Spith and into the Harbours of chester and Langstone.

* Those marked thus * are further licensed to take charge of any of Her Majesty's ships in the English Channel from Isle of Wight to Plymouth Sound, and from the Isle of Wight to the Downs.

RATES.

The Rates of Pilotage are the same as printed at pp. 31 and 32 of Parl. Paper, No. 516 of 1855.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND--COWES AND PORTSMOUTH—*continued*.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
ea to Portsmouth ur.	–	– –	3	14 10 6	21	98 18 6	2	8 12 –	46	204 18 10	1	3 17 –	nil	73	330 16 10
a to Spithead -	–	– –	–	– –	65	220 7 10	53	102 12 6	55	183 15 10	36	152 17 –	–	209	659 13 2
pithead to Ports- Harbour.	13	9 13 10	2	7 – –	14	22 8 –	14	36 4 2	7	9 6 8	1	1 2 –	–	51	85 14 8
a to Cowes - -	1	1 5 –	3	12 – –	22	83 – 9	10	40 2 6	70	225 11 4	37	184 9 –	–	143	546 8 7
a to Motherbank -	–	– –	–	– –	57	161 18 5½	1	4 – –	121	313 – 7	5	16 13 6	–	184	495 12 6½
a to St. Helen's -	1	– 18 9	–	– –	25	36 9 6½	2	2 1 8	21	23 9 3	–	– –	–	49	62 18 9½
a to Leap - -	–	– –	1	3 10 –	7	28 3 –	68	272 17 –	12	49 10 –	6	34 1 –	–	94	388 1 –
a to Stokes Bay -	1	3 10 –	–	– –	–	– –	–	– –	9	23 8 –	6	25 5 6	–	16	52 3 6
a to Calshot - -	–	– –	–	– –	–	– –	10	23 10 –	5	11 15 7	1	4 5 –	–	16	39 10 7
a to Brambles -	–	– –	–	– –	1	3 15 –	3	12 14 –	3	11 5 –	–	– –	–	7	27 14 –
a to Lymington -	6	6 5 –	–	– –	2	3 1 10½	–	– –	3	12 18 9	–	– –	–	11	22 5 7½
a to Jack in the t.	1	1 18 9	1	– 16 10	–	– –	–	– –	1	4 2 6	–	– –	–	3	6 18 1
ack in the Basket mington.	30	32 17 6	–	– –	–	– –	–	– –	1	1 2 –	–	– –	–	31	33 19 6
ea to Yarmouth	–	– –	–	– –	5	10 3 3	–	– –	1	1 10 –	–	– –	–	6	11 13 3
. Helen's to Mother-	–	– –	–	– –	7	3 4 1½	–	– –	1	– 18 9	–	– –	–	8	4 2 10½
ab to Spithead -	–	– –	–	– –	–	– –	1	1 4 –	–	– –	–	– –	–	1	1 4 –
ab to Portsmouth ur.	–	– –	–	– –	3	7 – 6	–	– –	–	– –	–	– –	–	3	7 – 6
ab to Motherbank -	–	– –	–	– –	–	– –	–	– –	2	4 7 –	–	– –	–	2	4 7 –
ab to St. Helen's -	–	– –	–	– –	1	1 1 –	–	– –	–	– –	–	– –	–	1	1 1 –
Cowes Roads to Harbour.	6	5 10 –	1	1 13 6	2	1 16 9	1	1 2 –	17	17 – 6	–	– –	–	27	26 13 7
a to Chichester and tone Harbour.	99	108 7 –	–	– –	1	2 18 6	–	– –	–	– –	–	– –	–	100	111 5 6
g within the Cowes ct.	–	– –	–	– –	2	1 7 –	–	– –	2	1 7 –	–	– –	–	4	2 14 –
rting within Ports- a Harbour.	–	– –	–	– –	5	5 5 –	1	1 1 –	5	4 4 –	–	– –	–	11	10 10 –
gs, Tide Work, &c.	3	1 2 6	–	– –	3	3 3 –	1	1 1 –	8	9 3 –	5	5 7 –	–	20	19 16 6
e Money - -	–	– –	–	– –	6	38 2 6	–	– –	12	24 7 –	2	22 13 –	–	20	85 2 6
TOTAL - - -	–	170 19 2	–	39 10 10	–	732 4 7	–	507 1 5	–	1,137 1 7	–	450 10 –	–	–	3,037 7 7

VESSELS CHANGING at a Line drawn from Eagle Hurst Point to North-west Bramble Buoy.

	No. of Vessels.	For Pilotage below the Line.
		£. s. d.
Amount paid by Vessels which have to take or pay for two or more Pilots - -	38	125 4 –

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—COWES AND PORTSMOUTH—*continued*

2.—OUTWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOT.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	A:
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£.
From Portsmouth to Sea -	3	10 6 6	2	8 15 –	25	116 5 3	14	74 4 6	35	119 1 9	9	33 8 10	nil	88	362
From Spithead to Sea -	–	– – –	–	– – –	39	139 15 10	48	66 4 10	25	70 12 6	4	21 5 –	–	116	297
From Portsmouth Harbour to Spithead.	–	– – –	5	21 12 –	6	6 4 –	6	15 3 4	11	10 3 4	1	1 4 –	–	29	54
From Motherbank to Sea -	–	– – –	1	2 16 3	51	149 8 6	1	4 1 –	72	188 7 4	4	11 6 3	–	129	355
From Cowes to Sea - -	–	– – –	3	12 – –	16	57 11 3	7	32 5 –	59	181 4 3	35	158 19 6	–	120	442
From St. Helen's to Sea -	2	2 5 11½	–	– – –	23	30 4 8	1	1 6 3	8	10 12 1½	–	– – –	–	34	44
From Yarmouth Roads to Sea.	–	– – –	–	– – –	5	11 18 1½	–	– – –	4	4 17 7	–	– – –	–	9	16
From Lymington to Sea -	–	– – –	–	– – –	3	4 11 10½	–	– – –	–	– – –	–	– – –	–	3	4
From Lymington to Nab -	–	– – –	–	– – –	–	– – –	–	– – –	1	4 – 6	–	– – –	–	1	4
From Lymington to Jack-in-the-Basket.	6	6 17 6	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	6	6
From Cowes Harbour to Cowes Roads.	2	1 16 6	–	– – –	2	2 8 –	–	– – –	11	10 3 1	–	– – –	–	15	14
From Chichester and Langstone Harbours to Sea.	55	41 2 –	–	– – –	1	1 16 –	–	– – –	–	– – –	–	– – –	–	56	42
From Isle of Wight to Start	–	– – –	–	– – –	1	10 – –	–	– – –	–	– – –	–	– – –	–	1	10
Distance Money - -	–	– – –	–	– – –	2	10 14 6	1	6 – –	5	33 19 –	–	– – –	–	8	50
TOTAL - - -	–	62 8 5½	–	45 3 3	–	540 18 –	–	199 4 11	–	633 1 5½	–	226 3 7	–	–	1,70

DARTMOUTH.

NAMES of PILOTS.

The Persons mentioned at p. 22 of Parl. Paper, No. 174 of 1858, are still acting.

RATES.

The Rates of Pilotage are the same as printed at p. 21 of Parl. Paper, No. 287 of 1860.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—DARTMOUTH—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which LOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
to Dartmouth r.	6	8 9 –	3	4 17 6	55	113 – –	12	25 14 6	50	113 8 9	25	59 7 9	nil –	151	324 17 6
to Torbay –	–	– – –	–	– – –	–	– – –	–	– – –	2	2 19 4	–	– – –	–	2	2 19 4
to Brixham –	–	– – –	–	– – –	1	– 16 –	–	– – –	–	– – –	–	– – –	–	1	– 16 –
TOTAL – – –	–	8 9 –	–	4 17 6	–	113 16 –	–	25 14 6	–	116 8 1	–	59 7 9	–	154	328 12 10

(2.)—OUTWARDS.

rtmouth Harbour Sea.	4	3 8 2	2	2 10 –	35	54 4 6	21	33 9 8	40	63 12 8	30	48 7 2	–	132	205 12 2

EXETER.

NAMES of PILOTS.

The Persons mentioned at p. 21 of Parl. Paper, No. 5, Sess. 2 of 1857, are still acting.

RATES.

The Rates of Pilotage are the same as printed in the Parl. Paper, No. 174 of 1858, pp. 23, 24.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.						TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.			
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.
o Axmouth – –	12	7 19 6	–	– – –	2	– 18 –	–	– – –	–	– – –	–	– – –	–	– – –	14	8 17 6
o Bight at Exmouth –	356	490 – 11	25	41 – –	36	69 16 5	9	24 10 5	39	87 14 5	11	38 17 6	1	4 9 2	477	756 8 10
at Exmouth to Turf –	200	90 1 10	37	21 11 5½	21	13 14 6	6	2 16 6½	19	9 8 4	6	2 9 5½	–	– – –	289	140 2 1½
t at Exmouth to Top-	42	25 8 1	14	9 6 –	4	3 8 4½	–	– – –	2	1 11 4	–	– – –	–	– – –	62	39 13 9½
TOTAL – – –	–	613 10 4	–	71 17 5½	–	87 17 3½	–	27 6 11½	–	98 14 1	–	41 6 11½	–	4 9 2	842	945 2 3

(2.)—OUTWARDS.

nam to Exmouth –	49	31 2 2	7	5 14 2	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	56	36 16 4
to Exmouth – –	166	71 12 4	27	14 6 6	–	– – –	–	– – –	2	– 18 3	1	– 13 4	–	– – –	196	87 10 5
t at Exmouth to Sea –	106	62 7 2	7	4 – 3	17	13 18 10	2	1 – 2	29	29 14 2½	10	7 16 1	–	– – –	171	118 16 8½
TOTAL – – –	–	165 1 8	–	24 – 11	–	13 18 10	–	1 – 2	–	30 12 5½	–	8 9 5	–	– – –	443	243 3 5½

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

FALMOUTH.

NAMES of PILOTS.

See the List printed at p. 22 of Parl. Paper, No. 287 of 1860. Joseph J. Vincent, aged 30, has been appointed in the pla Joseph Sharrock. No other alteration has been made.

RATES.

The Rates of Pilotage are the same as printed at p. 21 of Parl. Paper, No. 243 of 1861.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.								TO
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.				
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.	
From off the Lizard and parallel thereof to Falmouth and places within an imaginary line drawn from the Lighthouse on St. Anthony's Point to the Block House on Pendennis Point.	–	– –	–	– –	81	354 5 6	3	17 6 –	523	2,115 1 11	3	14 3 –	12	51 18 5	–	– –	622
From Sea outside an imaginary line drawn from the Manacles to the Dodman to Falmouth and places within the imaginary line above stated.	3	6 5 –	–	– –	761	1,759 3 –	10	21 – –	1,256	2,833 5 6	9	23 3 –	30	74 8 9	–	– –	2,069
From Sea inside an imaginary line drawn from the Manacles to the Dodman to Falmouth and places within the imaginary line above stated.	–	– –	1	1 6 6	100	140 17 10	5	6 1 6	77	109 10 5	6	7 7 6	1	1 1 11	–	– –	190
From Sea to Anchorages outside the imaginary line above stated.	–	– –	–	– –	4	7 19 10	2	2 2 4	8	9 13 –	–	– –	–	– –	–	– –	14
From off the Dodman to Falmouth.	–	– –	–	– –	–	– –	–	– –	1	4 10 –	–	– –	–	– –	–	– –	1
From Helford to Falmouth	–	– –	–	– –	2	3 15 –	–	– –	–	– –	–	– –	–	– –	–	– –	2
From Sea to Helford	–	– –	–	– –	–	– –	–	– –	3	5 14 –	–	– –	–	– –	–	– –	3
Transporting within the Harbour.	–	– –	–	– –	–	– –	–	– –	4	5 15 3	2	1 18 3	–	– –	–	– –	6
Distance Money	–	– –	–	– –	3	5 14 –	–	– –	12	17 17 6	2	3 – –	–	– –	–	– –	17
TOTAL	–	6 5 –	–	1 6 6	–	2,271 15 2	–	46 9 10	–	5,101 7 7	–	49 11 9	–	127 9 1	–	– –	–

(2.)—OUTWARDS.

From Falmouth and places within an imaginary line drawn from the Lighthouse on St. Anthony's Point to the Blockhouse on Pendennis Point to Sea.	22	56 6 6	14	17 13 9	674	1,479 17 9	160	319 15 2	1,382	3,057 16 11	164	330 17 5	31	72 15 8	1	2 6 8	2,448
From outside the above line from St. Anthony's Point to Pendennis Point to Sea.	–	– –	–	– –	3	3 10 6	–	– –	5	6 17 –	–	– –	–	– –	–	– –	8
TOTAL	–	56 6 6	–	17 13 9	–	1,483 8 3	–	319 15 2	–	3,064 13 11	–	330 17 5	–	72 15 8	–	2 6 8	–

FLEETWOOD-ON-WYRE.

NAMES of PILOTS.

Robert Gerard	aged 55	John Grimshaw	aged 32
Thomas Hornby	61	John Hesketh	35

Limits of License.—From Sea into the of Fleetwood-on-Wyre, and from the said to Sea.

RATES.

The Rates of Pilotage are the same as printed at p. 41 of Parl. Paper, No. 516 of 1855.

ORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—FLEETWOOD-ON-WYRE—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.						TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.			
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.
stance (off Ros- in a line with dre) to Fleet- ur.	14	16 1 –	–	– – –	8	29 – –	22	81 8 1½	11	20 14 6	10	32 12 4½	–	– – –	65	179 16 –
and Third Dis- Lighthouse and tside) to Fleet- ur.	49	37 9 –	2	1 13 9	4	11 14 1½	5	10 14 6	3	6 4 9	2	2 11 7½	–	– – –	65	70 7 9
Distance (in- Lighthouse) to Harbour.	158	84 16 6	2	1 – 3	2	3 9 6	–	– – –	–	– – –	–	– – –	–	– – –	162	89 6 3
ey - - -	–	– – –	–	– – –	11	17 17 –	–	– – –	2	3 3 –	–	– – –	–	– – –	13	21 – –
OTAL - - -	–	138 6 6	–	2 14 –	–	62 – 7½	–	92 2 7½	–	30 2 3	–	25 4 –	–	– – –	–	360 10 –

(2.)—OUTWARDS.

od Harbour to	45	20 6 –	–	– – –	6	10 10 –	30	42 8 7	4	6 15 –	11	12 9 2	1	2 2 11	97	94 11 8

FOWEY.

NAMES of PILOTS.

The Persons mentioned at p. 23 of Parl. Paper, No. 244 of 1859, are still acting.

RATES.

The Rates of Pilotage are the same as printed at p. 43 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
outside Limits) urs of Fowey, sey Pier, own and Loo.	1	3 12 6	–	– – –	1	3 – –	–	– – –	12	40 3 9	–	– – –	nil -	14	46 16 3
ads to the Harbours, as	274	102 18 7	2	1 1 6	12	27 10 –	–	– – –	32	43 5 3	–	– – –	–	320	174 15 4
ng within the and Lay Days.	5	3 9 4½	–	– – –	–	– – –	–	– – –	6	4 16 9	–	– – –	–	11	8 6 1½
oney - -	–	– – –	–	– – –	1	3 3 –	–	– – –	–	– – –	–	– – –	–	1	3 3 –
OTAL - - -	–	110 – 5½	–	1 1 6	–	33 13 –	–	– – –	–	88 5 9	–	– – –	–	–	233 – 8½

(2.)—OUTWARDS.

Harbours of y, Mevagissey arlestown and ea.	246	87 9 11	3	1 1 6	6	7 7 10	1	– 16 –	24	29 15 11	1	1 – –	–	281	127 11 2

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

GLOUCESTER.

NAMES of PILOTS.

See the list at p. 21 of Parl. Paper, No. 287 of 1860. The persons there mentioned are still acting, with the additio
William Smith, aged 27.

RATES.

The Rates of Pilotage are the same as printed at pp. 44 and 45, of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TO
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.	
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		
From King Road to Lydney.	43	24 1 4	–	– – –	–	– – –	–	– – –	1	1 1 –	–	– – –	nil	44
From King Road to Chepstow.	3	2 9 6	–	– – –	–	– – –	1	1 6 3	–	– – –	–	– – –	–	4
From King Road to Sharpness Point.	369	420 1 –	3	3 5 7	56	108 14 10	174	461 16 5	62	108 4 9	177	466 6 10½	–	841
TOTAL - - -	–	446 11 10	–	3 5 7	–	108 14 10	–	463 2 8	–	109 5 9	–	466 6 10½	–	889

(2.)—OUTWARDS.

From Sharpness to King Road.	328	359 13 8½	34	40 18 7	47	71 12 10	168	222 1 4½	28	30 9 10½	195	241 10 5	–	800
From Lydney to King Road.	60	49 12 7½	2	1 16 –	–	– – –	–	– – –	1	1 15 –	1	1 6 3	–	64
From King Road to Holmes	–	– – –	–	– – –	–	– – –	–	– – –	1	1 1 –	–	– – –	–	1
TOTAL - - -	–	409 6 4	–	42 14 7	–	71 12 10	–	222 1 4½	–	33 5 10½	–	242 16 8	–	865

HARWICH.

NAMES of PILOTS.

The Pilots mentioned at p. 25 of Parl. Paper, No. 244 of 1859, are still acting.

RATES.

The Rates of Pilotage are the same as printed at p. 46 of Parl. Paper, No. 516 of 1855.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—HARWICH—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

TANCES or which LOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
to Harwich -	1	4 4 –	1	3 3 –	1	4 4 –	–	– – –	45	150 2 –	1	4 4 –	nil	49	165 17 –
olling Grounds wich.	5	12 12 –	1	1 11 6	–	– –	–	– –	1	2 2 –	–	– –	–	7	16 5 6
abness to Mist-	275	140 9 3	2	1 – –	1	– 9 –	–	– –	11	5 7 5	–	– –	–	289	147 5 8
abness to Man- e.	19	8 2 –	–	– –	–	– –	–	– –	–	– –	–	– –	–	19	8 2 –
wich to Mistley	3	3 17 –	–	– –	3	3 1 4	–	– –	14	16 8 10	–	– –	–	20	23 7 2
rwich to Wrab-	1	1 7 2	–	– –	1	1 4 9	–	– –	1	1 13 –	–	– –	–	3	4 4 11
ith's Knowle, ith, and Lowes- Orfordness.	–	– –	–	– –	–	– –	–	– –	6	13 10 –	–	– –	–	6	13 10 –
thwold to Or- s.	–	– –	–	– –	1	1 10 –	–	– –	14	16 10 6	–	– –	–	15	18 – 6
TOTAL - - -	–	170 11 5	–	5 14 6	–	10 9 1	–	– –	–	205 13 9	–	4 4 –	–	–	396 12 9

(2.)—OUTWARDS.

Manningtree to ess.	19	8 2 –	–	– –	–	– –	–	– –	–	– –	–	– –	nil	19	8 2 –
stley to Wrab-	275	140 9 3	2	1 – –	1	– 9 –	–	– –	11	5 7 5	–	– –	–	289	147 5 8
stley to Harwich	3	3 17 1	–	– –	3	3 1 3	–	– –	13	15 7 8	–	– –	–	19	22 6 –
abness to Har-	1	1 7 11	–	– –	1	1 4 9	–	– –	1	1 13 –	–	– –	–	3	4 5 8
rwich to Rolling ls.	–	– –	–	– –	–	– –	–	– –	–	– –	1	1 11 6	–	1	1 11 6
rwich to Sea -	1	2 2 –	5	13 4 7	–	– –	2	5 3 –	6	16 10 –	–	– –	–	14	36 19 7
TOTAL - - -	–	155 18 3	–	14 4 7	–	4 15 –	–	5 3 –	–	38 18 1	–	1 11 6	–	–	220 10 5

HOLYHEAD.

NAMES of PILOTS.

Owen - - -	aged 52	Robert Peters - - -	aged 33
Jones - - - -	54	Robert Jones (2) - - -	32
Jones - - - -	40	Robert Roberts - - - -	34
Williams - - -	40	William Meredith - - -	34

Limits of License:—Into and out of the road-stead and harbour of Holyhead, and upon the coast to and from the anchorages at Great Orm's Head; along the coast of the Isle of Anglesea and Wales, as far as Bardsey Island, except the bar and harbour of Caernarvon, and through the Swellies.

RATES.

The Rates of Pilotage are the same as printed at p. 47 of Parl. Paper, No. 516 of 1855.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—HOLYHEAD—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.				UNPRIVILEGED.	TOTA	
	COASTERS.				OVERSEA.				PRIVILEGED.						
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Am
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£.
From Sea to Old Harbour	–	– – –	1	4 11 3	8	11 5 9	–	– – –	5	7 2 6	–	– – –	nil	14	22
From Sea to New Harbour	6	13 11 3	3	8 2 6	155	229 10 6	12	24 8 3	94	143 18 9	1	1 16 9	–	271	421
TOTAL - - -	–	13 11 3	–	12 13 9	–	240 16 3	–	24 8 3	–	151 1 3	–	1 16 9	–	285	444

(2.)—OUTWARDS.

From Old Harbour to Sea	–	– – –	1	4 11 3	9	13 18 6	–	– – –	5	7 2 6	–	– – –	nil	15	25
From New Harbour to Sea	7	11 19 9	3	8 2 6	156	233 19 9	12	25 9 3	96	147 8 –	1	1 16 9	–	275	428
From Off Holyhead to Point Lynas.	–	– – –	–	– – –	1	3 3 –	1	3 3 –	5	15 15 –	–	– – –	–	7	22
Distance Money - -	–	– – –	–	– – –	1	3 3 –	–	– – –	–	– – –	–	– – –	–	1	3
TOTAL - - -	–	11 19 9	–	12 13 9	–	254 4 3	–	28 12 3	–	170 5 6	–	1 16 9	–	–	479

IPSWICH.

NAMES of PILOTS.

With the exception of Robert Whiting, the Pilots mentioned at p. 27 of Parl. Paper, No. 287 of 1860, are still acting.

RATES.

The Rates of Pilotage and Regulations are the same as printed at pp. 49 and 50 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.				UNPRIVILEGED.	TOT	
	COASTERS.				OVERSEA.				PRIVILEGED.						
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	A
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£
From Harwich to Downham Reach.	58	29 – –	7	3 19 7	23	13 8 6	5	2 19 7½	45	26 5 2	4	1 19 7	nil	142	7
From Levington Creek to Downham Reach.	111	33 – 7	15	5 7 2½	2	– 10 3	–	– – –	2	– 11 –	–	– – –	–	130	3
From Downham Reach to Ipswich.	506	274 7 4½	310	151 4 7	60	27 10 5	23	9 18 10	36	18 11 4½	26	12 6 2	–	961	49
From Levington Creek to Ipswich.	14	9 1 2	22	17 3 9½	1	1 2 9	–	– – –	1	1 – –	–	– – –	–	38	2
From Harwich to Ipswich	8	6 3 2	18	12 14 9	1	– 12 –	1	1 2 11	6	5 18 9	5	4 3 9	–	39	3
TOTAL - - -	–	351 12 3½	–	190 9 11	–	43 3 11	–	14 1 4½	–	52 6 3½	–	18 9 6	–	–	67

(2.)—OUTWARDS.

From Ipswich to Downham Reach.	336	147 7 7	170	60 13 11½	67	29 7 1½	9	4 16 1	4	1 14 5	3	1 19 1	nil	589	24
From Ipswich to Levington Creek.	86	57 1 5	87	45 16 9½	6	5 6 7	6	4 17 5½	–	– – –	–	– – –	–	185	11
From Ipswich to Harwich	38	35 8 5½	51	34 8 7½	3	1 13 4	8	8 4 1	31	26 18 5	27	20 7 –	–	158	12
TOTAL - - -	–	239 17 5½	–	140 19 4½	–	36 7 –½	–	17 17 7½	–	28 12 10	–	22 6 1	–	–	48

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

LOWESTOFT.

NAMES of PILOTS.

ran	aged 52	*Limits of License.*—From Corton Pole to the North and Benacre Point to the South, and into and out of the Harbour of Lowestoft; also from Sea through the different Channels and Gattways into Yarmouth Roads, and *vice versâ*.	John Butcher aged 62 John Golder - 64 Henry Golder - 39 John Harvey Golder 38 James Cook - 32	*Limits of License.*—From Corton Pole to the North and Benacre Point to the South, and into and out of the Harbour of Lowestoft.
ry Swan	54			

RATES.

The Rates of Pilotage are the same as printed at p. 26 of Parl. Paper, No. 354 of 1856.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
o Roads -	–	– –	–	– –	3	7 2 –	–	– –	18	44 4 –	–	– –	nil	21	51 6 –
s to Harbour	72	55 18 7	96	84 3 10½	9	6 2 1½	32	25 5 11	32	23 17 10	27	22 14 9½	–	268	218 3 1½
TAL - - -	–	55 18 7	–	84 3 10½	–	13 4 1½	–	25 5 11	–	68 1 10	–	22 14 9½	–	289	269 9 1½

(2.)—OUTWARDS.

our to Roads	16	11 5 6	51	41 5 2	7	5 10 6	19	15 12 –	21	12 17 9	15	9 11 9	–	129	96 2 8
s to Sea -	3	4 17 6	1	1 15 –	14	21 10 –	2	4 6 3	25	36 5 –	–	– –	–	45	68 13 9
TAL - - -	–	16 3 –	–	43 – 2	–	27 – 6	–	19 18 3	–	49 2 9	–	9 11 9	–	174	164 16 5

MALDON.

NAMES of PILOTS.

The Pilots mentioned at p. 27 of Parl. Paper, No. 243 of 1861, are still acting.

RATES.

The Rates of Pilotage are the same as printed at p. 52. of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.					TOTALS.	
	COASTERS.		OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
sgate to Maldon -	269	171 2 3	7	3 18 9	1	– 12 6	10	10 1 3	1	– 12 6	nil	288	186 7 3
rdness to Maldon -	–	– –	–	– –	–	– –	1	6 6 9	–	– –	–	1	6 6 9
TOTAL - - -	–	171 2 3	–	3 18 9	–	– 12 6	–	16 8 –	–	– 12 6	–	289	192 14 –

(2).—OUTWARDS.

don to Stansgate -	293	128 17 –	4	1 17 3	–	– –	5	5 19 9	–	– –	–	302	136 14 –
sgate to Orfordness -	–	– –	–	– –	–	– –	1	4 2 9	–	– –	–	1	4 2 9
TOTAL - - -	–	128 17 –	–	1 17 3	–	– –	–	10 2 6	–	– –	–	303	140 16 9

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

MILFORD.

NAMES of PILOTS.

George John	aged 57	William Watkins	aged 44
John Lewis	46	Thomas Step. Johns	31
James Hancock	47	William John	26
William Ivemy	55	James Eynon	38

Limits of License.—From Caldy Islan the Coast to St. David's Head, and from t Cardigan Island and *vice versâ*; from Island to Caldy Island, and to and from and out of all ports and places within thos

George Peters	aged 42	*Limits of License.*—From Sea into the Port of Milford, and to and from all places and anchorages within the said Port to Sea.
David Griffiths	41	

RATES.

The Rates of Pilotage are the same as printed at pp. 53, 54 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOT
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.	
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		
From Sea to Milford Harbour, below a line from Newton Noyse Point to Martin's Haven.	2	3 – –	–	– – –	32	63 18 –	8	22 2 8	21	44 2 3	1	– 18 9	nil	64
From Sea to Milford Harbour, above the said line.	–	– –	12	33 6 –	8	34 – 3	1	2 10 –	4	14 – –	–	– –	–	25
From Sea to Pembroke Dock.	–	– –	1	2 16 3	7	38 16 –	2	9 13 6	4	15 18 –	–	– –	–	14
Transporting within the district and lay days.	2	2 2 –	4	3 19 9	1	– 15 9	–	– –	4	4 17 3	–	– –	–	11
TOTAL	–	5 2 –	–	40 2 –	–	137 10 –	–	34 6 2	–	78 17 6	–	– 18 9	–	–

(2.)—OUTWARDS.

From Milford Harbour, above a line drawn from Newton Noyse Point to Martin's Haven, to Sea.	–	– –	23	61 8 6	–	– –	–	– –	4	11 11 –	–	– –	–	27
From Milford Harbour below the said line to Sea.	–	– –	1	1 – –	47	92 14 –	10	23 12 11	8	15 1 6	1	1 10 –	–	67
From Pembroke Dock to Sea.	2	5 3 6	6	12 16 6	6	17 7 –	1	2 – 6	7	19 2 6	–	– –	–	22
TOTAL	–	5 3 6	–	75 5 –	–	110 1 –	–	25 13 5	–	45 15 –	–	1 10 –	–	116

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

NEATH.

NAMES of PILOTS.

s Emanuel	aged 44	Lewis Williams -	aged 27	James Williams -	aged 28
s Jones -	- 61	William Williams (1) -	58	Daniel Evans -	- 33
Perkins -	- 44	William Williams (2) -	51	Thomas Griffiths	- 25
n Phillips	- 47	William Williams (3) -	38	Thomas Jones -	- 29
Reynolds -	- 41	William Williams (4) -	36	Jeremiah Gilbert	- 41
l Vaughan	- 54	John Emanuel -	- 43	William Phillips	- 26
Williams	- 50	Thomas White -	- 35	George Phillips -	- 25
Williams	- 59	Henry Perrett -	- 54	James Vaughan -	- 29
Williams	- 38	John Evans -	- 38		

Limits of License.—From the outside of Neath Bar into the Port and Harbour of Neath, and *vice versâ*.

RATES.—The Rates of Pilotage are the same as printed at pp. 55, 56 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

TANCES for which LOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
or Outer Buoy to ation.	476	206 9 5	1,031	475 12 8	6	3 7 9	2	2 9 6	13	5 16 3	8	6 5 6	- nil -	1,536	700 1 1
or Outer Buoy to Station.	63	33 3 10	179	93 16 -	1	- 10 1	-	- -	8	4 1 3	9	4 13 2	- -	260	136 4 4
or Outer Buoy to ation.	10	5 5 -	41	26 19 4	-	- -	1	- 11 6	-	- - -	1	- 12 6	- -	53	33 8 4
TOTAL - - -	-	244 18 3	-	596 8 -	-	3 17 10	-	3 1 -	-	9 17 6	-	11 11 2	- -	1,849	869 13 9

(2.)—OUTWARDS.

Station to Sea -	358	192 12 9	1,139	657 18 9	3	1 14 7	2	2 8 -	8	4 1 2	10	5 8 10	- nil -	1,520	864 4 1
ond Station to Sea	28	21 11 9	195	129 12 -	1	- 10 8	-	- -	1	1 12 -	18	12 - 11	- -	245	165 7 4
rd Station to Sea -	-	- -	24	15 18 -	-	- -	1	- 11 6	-	- - -	1	- 12 6	- -	26	17 2 -
TOTAL - - -	-	214 4 6	-	803 8 9	-	2 5 3	-	2 19 6	-	5 13 2	-	18 2 3	- -	1,791	1,046 13 5

NEWHAVEN.

NAMES of PILOTS.—The Pilots mentioned at p. 31 of Parl. Paper, No. 287 of 1860, are still acting.

RATES.—The Rates of Pilotage are the same as printed at p. 57 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.		PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
a to Harbour -	223	289 1 3	23	29 2 6	7	5 6 6	14	15 15 9	1	1 8 9	nil	268	340 14 9

(2.)—OUTWARDS.

arbour to Sea -	220	123 16 3	20	11 3 9	5	2 5 -	14	7 14 -	1	1 8 9	nil	260	146 7 9

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

NEWPORT.

NAMES of PILOTS.

Thomas Brown	64	James Comerford	aged 37
Abraham Gilmore	53	Thomas Phillips	43
Charles Cox	50	David James	42
George Morgan	58	Henry Ray, jun.	29
Daniel Jones	61	Thomas Jones	27
George Nash	51	Henry James Fry	30
David Prosser	47	William Nash	28
Henry Ray	52	William Ray	28
William Parfitt, jun.	33	Thomas Shepherd Weeks	27
William Jones	32	Edward Small	26

Limits of License.—From Rhymney River to wick Pill, and into and out of all Ports and within those Places; and across the Bristol Ch in a South East direction, between the said Rhy River and Redwick Pill as far as an imaginar drawn from the Flat and Steep Holmes to A the County of Gloucester.

RATES.

The Rates of Pilotage are the same as printed at p. 30 of Parl. Paper, No. 243 of 1861.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.								TOTA
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.				
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	A
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£
From Penarth to Newport	32	26 14 2	48	63 8 11	53	57 12 2	56	68 15 8	58	46 3 3	58	75 11 –	–	– –	–	– –	305	3
From Rhymney River to Newport.	14	12 8 2	2	2 4 9	43	39 8 2	104	103 4 7	54	41 3 –	150	169 3 3	3	3 5 2	–	– –	370	3
From Mouth of the Usk to Newport.	17	9 – 6	1	– 16 3	16	7 19 9	13	9 11 6	27	11 11 9	5	4 6 9	–	– –	–	– –	79	
From King Road to Newport	–	– –	–	– –	2	1 15 –	–	– –	–	– –	–	– –	–	– –	–	– –	2	
Assistance, Lay Days, Tide Work, &c.	4	– 17 6	–	– –	15	8 6 6	–	– –	31	14 9 –	–	– –	–	– –	–	– –	50	
Distance Money	–	– –	–	– –	9	33 19 –	–	– –	13	36 10 6	–	– –	–	– –	–	– –	22	
TOTAL	–	49 – 4	–	66 9 11	–	149 – 7	–	181 11 9	–	149 17 6	–	249 1 –	–	3 5 2	–	– –	–	8

(2.)—OUTWARDS.

From Newport to Mouth of the Usk.	75	51 9 6	2	1 18 9	5	3 16 3	–	– – –	1	– 12 6	–	– – –	–	– –	–	– –	83	
From Newport to Rhymney River.	8	10 5 6	9	15 13 –	175	213 11 11	159	268 – –	96	104 9 –	201	383 13 1	35	45 9 10	18	35 15 5	701	1,
From Newport to Penarth	17	21 5 3	46	61 8 6	45	67 18 9	22	58 17 6	21	24 8 5	11	21 8 6	2	3 14 2	1	1 10 –	165	
Distance Money	–	– –	–	– –	4	13 8 –	–	– – –	5	25 9 –	–	– – –	–	– –	–	– –	9	
TOTAL	–	83 – 3	–	79 – 3	–	298 14 11	–	326 17 6	–	154 18 11	–	405 1 7	–	49 4 –	–	37 5 5	–	1,

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

PADSTOW.

NAMES of PILOTS.

tribley - -	aged 39	Robert Cobbledick -	aged 50	*Limits of License.*—From the Mouls, eastward of Pentyre Point, to the Quays, westward of Trevose Head, and into and out of all ports and places within those limits.
ce - - -	45	Samuel French - -	35	
releaven - -	50	William Henwood - -	29	

RATES.

The Rates of Pilotage are the same as printed at pp. 60, 61, of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which LOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	Not Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.			£. s. d.
nt to Padstow - -	335	131 10 11	4	14 1 6	2	1 1 6	- nil -	341	146 13 11

(2.)—OUTWARDS.

ow to Stepper Point -	121	21 3 7	4	9 13 -	1	- 5 10	- nil -	126	31 2 5

PENZANCE.

NAMES of PILOTS.—The Pilots mentioned at p. 33 of Parl. Paper, No. 287 of 1860, are still acting.

RATES.—The Rates of Pilotage are the same as printed at p. 62 of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

'ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.			TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.		UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
Roadsteads or Mount's Bay.	11	5 4 -	76	31 12 -	25	33 - -	3	3 10 -	50	67 17 -	- nil -	165	141 3 -
o either of the Mount's Bay.	1	- 15 -	-	- -	-	- -	-	- -	8	6 12 -	- -	9	7 7 -
oney - -	7	2 10 -	-	- -	20	13 3 6	3	5 5 -	44	36 7 6	- -	74	57 6 -
TOTAL - - -	-	8 9 -	-	31 12 -	-	46 3 6	-	8 15 -	-	110 16 6	- -	-	205 16 -

(2.)—OUTWARDS.

steads and Piers 's Bay to Sea.	1	- 10 -	76	30 16 -	9	12 3 -	2	1 12 -	29	27 - -	- nil -	117	72 1 -

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

PLYMOUTH.

NAMES of PILOTS.

James Hyde	aged 66	William Williams	aged 48	George Hoppins	aged 33
Thomas Brooks	64	Samuel Hancock	49	John Parford	38
George Williams	59	Edward Glinn	41	Charles Tucker, jun.	34
Isaac Pearse	46	William Parford	35	William W. Tucker	28
William Hoppen	73	Samuel Lane	57	Henry Skelton	34
John Eddey	65	Thomas Noble	39	George Phillips	36
Charles Tucker	64	Joel Treliven	47	Robert Dyer	34
Joseph Eddy	57	John Hooper Brooks	40	William H. Brooks	25
Robert Williams	56	William Cullis	42	John Spriddell (1)	29
John Hoppins	46	John Glinn	32	John Spriddell (2)	35
William Glinn	47	John B. Williams	32	Samuel Hancock, jun.	24

Limits of License.—From mouth Sound, in and out of Ha and Plymouth Pool and Catwa and out of Cawsand Bay. I coast, to the westward as far es and eastward as far as the Sta into and out of all ports and within those limits.

RATES.

The Rates of Pilotage are the same as printed at pp. 63, 64, of Parl. Paper, No. 516 of 1855.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.				UNPRIVILEGED.	TOTA	
	COASTERS.				OVERSEA.				PRIVILEGED.						
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Ar
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£.
From Sea to Sound	4	7 6 3	–	– –	191	399 14 3	26	61 18 –	183	331 12 –	8	18 – 9	nil	412	81
From Sea to Catwater	–	– –	–	– –	24	62 3 –	–	– –	44	97 6 6	–	– –	–	68	15
From Sea to Sutton Pool	1	1 16 –	1	2 8 –	23	57 14 –	–	– –	12	30 16 –	1	2 12 –	–	38	9
From Sea to Mill Bay	1	2 12 –	9	22 14 –	10	31 1 9	20	60 5 6	14	41 17 6	5	16 5 –	–	59	17
From Sea Stonehouse Pool.	–	– –	–	– –	4	10 4 –	2	10 – –	8	25 17 6	–	– –	–	14	4
From Sea to Hamoaze	–	– –	–	– –	5	19 3 –	2	6 19 6	13	41 1 –	1	4 15 –	–	21	7
From Sound to Catwater	–	– –	–	– –	11	23 1 –	13	38 – 3	4	5 5 –	1	3 1 3	–	29	6
From Sound to Sutton Pool.	–	– –	–	– –	8	16 5 6	2	5 12 –	6	12 9 3	1	1 12 6	–	17	3
From Sound to Mill Bay	–	– –	–	– –	8	15 10 6	6	14 9 6	15	29 7 –	7	16 14 3	–	36	7
From Sound to Stonehouse Pool.	–	– –	–	– –	2	4 8 6	3	9 19 6	3	6 1 –	1	1 10 –	–	9	2
From Sound to Hamoaze	1	2 2 6	–	– –	2	4 2 –	1	2 17 9	–	– –	1	1 10 –	–	5	1
Transporting within the Harbour.	1	1 10 –	–	– –	1	1 10 –	9	14 7 7	7	5 15 6	1	2 – –	–	19	2
Lay Days	–	– –	–	– –	1	1 12 –	–	– –	–	– –	–	– –	–	1	
Distance Money	–	– –	–	– –	12	18 4 –	2	2 9 –	21	46 16 6	–	– –	–	35	6
TOTAL	–	15 6 9	–	25 2 –	–	664 13 6	–	226 18 7	–	674 4 9	–	68 – 9	–	–	1,67

(2.)—OUTWARDS.

From Sound to Sea	1	3 – –	–	– –	155	325 8 3	28	67 6 –	145	248 18 6	9	19 7 –	nil	338	66
From Catwater to Sea	–	– –	–	– –	35	85 10 –	4	12 9 6	22	46 14 –	2	6 10 –	–	63	15
From Sutton Pool to Sea	–	– –	–	– –	15	27 4 –	4	11 5 6	18	34 15 6	1	1 12 –	–	38	7
From Mill Bay to Sea	5	11 4 –	10	25 16 –	19	42 14 9	21	59 7 –	15	32 4 –	3	8 2 –	–	73	17
From Stonehouse Pool to Sea.	–	– –	–	– –	–	– –	1	2 2 –	1	2 8 –	–	– –	–	2	
From Hamoaze to Sea	–	– –	–	– –	1	2 8 –	–	– –	3	8 8 –	1	2 4 –	–	5	1
From Catwater to Sound	–	– –	–	– –	2	6 5 6	9	20 18 –	1	1 7 6	–	– –	–	12	2
From Mill Bay to Sound	–	– –	–	– –	1	3 6 6	2	2 7 –	3	3 17 6	1	1 8 9	–	7	1
From Sutton Pool to Sound.	–	– –	–	– –	2	5 – –	–	– –	1	1 2 6	–	– –	–	3	
From Stonehouse Pool to Sound.	–	– –	–	– –	1	1 12 6	1	2 9 –	–	– –	–	– –	–	2	
From Hamoaze to Sound	–	– –	–	– –	2	3 3 9	–	– –	2	2 12 6	1	1 5 –	–	5	
Distance Money	–	– –	–	– –	5	9 2 6	–	– –	6	9 1 3	1	2 5 –	–	12	2
TOTAL	–	14 4 –	–	25 16 –	–	512 4 9	–	178 4 –	–	391 9 3	–	42 13 9	–	–	1,1

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

POOLE.

NAMES of PILOTS.—The Pilots mentioned at p. 36 of Parl. Paper, No. 287 of 1860, are still acting.

RATES.—The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, p. 65.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

NCES hich TED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
etween St. d Christ- ds) to Poole.	–	– –	–	– –	2	3 13 6	–	– –	8	14 19 3	1	2 5 6	nil	11	20 18 3
n's to Poole	–	– –	–	– –	–	– –	–	– –	2	4 12 –	1	2 8 –	–	3	7 – –
wanage -	8	6 7 –	–	– –	–	– –	–	– –	–	– –	–	– –	–	8	6 7 –
ge Bay to	2	1 11 –	–	– –	–	– –	–	– –	–	– –	–	– –	–	2	1 11 –
d Bay and e.	262	263 11 11	77	71 – 9	54	69 2 3	14	23 11 1	14	21 15 9	16	27 8 10	–	437	476 10 7
nd Bay to	1	– 17 –	–	– –	–	– –	–	– –	–	– –	–	– –	–	1	– 17 –
L - - -	–	272 6 11	–	71 – 9	–	72 15 9	–	23 11 1	–	41 7 –	–	32 2 4	–	462	513 3 10

(2.)—OUTWARDS.

o Bar and ay.	229	210 1 6	44	35 18 9	17	26 14 9	23	33 1 3	11	13 1 –	12	15 2 9	nil	336	334 – –
e to Sea -	1	– 12 –	–	– –	–	– –	–	– –	–	– –	–	– –	–	1	– 12 –
L - - -	–	210 13 6	–	35 18 9	–	26 14 9	–	33 1 3	–	13 1 –	–	15 2 9	–	337	334 12 –

PORTMADOC.

PILOTS.—The Pilots mentioned at p. 39 of Parl. Paper, No. 174 of 1858, are still acting, with the following additions, viz., John Humphreys, aged 24, John Williams, jun., aged 22, and Robert Rowlands, aged 34.

RATES.—The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, pp. 66, 67.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—PORTMADOC—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.				TOTAL	
	COASTERS.				OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.					
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amo
		£. s. d.		£. s. d.		£. s. d.		£. s. d.				£.
From Sea to Harbour -	326	136 10 -	3	1 10 2	102	74 17 -	2	1 13 6	-	nil -	433	214

(2.)—OUTWARDS.

From Harbour to Sea -	331	138 7 7	3	1 10 2	115	81 - 8	2	1 13 6	-	nil -	451	222

ROCHESTER.

NAMES of PILOTS.—The Pilots mentioned at p. 39 of Parl. Paper, No. 174 of 1858, are still acting.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.				TOTA	
	COASTERS.		OVERSEA.				PRIVILEGED.				UNPRIVILEGED.	
			Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
			No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		
				£. s. d.		£. s. d		£. s. d.		£. s. d.		
From the Nore to Chatham and Rochester.	-	nil -	-	- - -	-	- - -	4	15 13 6	3	9 15 9	- nil -	7
From Sheerness to Chatham and Rochester.	-	-	1	1 15 -	13	49 7 4	3	7 14 -	11	31 9 10½	- - -	28
TOTAL - - -	-	-	-	1 15 -	-	49 7 4	-	23 7 6	-	41 5 7½	- - -	35

(2.)—OUTWARDS.

From Chatham to Sea -	-	nil -	4	32 11 -	3	17 9 6	14	88 9 -	2	13 13 6	- - -	23
From Sheerness to Sea -	-	-	4	26 18 6	2	13 18 9	3	21 1 -	2	22 4 -	- - -	11
From Chatham to Nore -	-	-	-	- - -	-	- - -	1	2 15 -	-	- - -	- - -	1
From Chatham to Sheerness	-	-	-	- - -	1	2 5 -	-	- - -	1	2 15 6	- - -	2
From Sheerness to Gravesend	-	-	-	- - -	-	- - -	-	- - -	1	2 13 6	- - -	1
TOTAL - - -	-	-	-	59 9 6	-	33 13 3	-	112 5 -	-	41 6 6	- - -	38

RYE.

NAMES of PILOTS.—The Pilots mentioned at p. 35 of Parl. Paper, No. 243 of 1861, are still acting.

RATES.—The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, p. 35.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—RYE—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES. which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
to Pier - -	13	15 17 6	32	33 14 -	1	- 8 2	1	1 2 -	1	1 19 -	4	4 1 4	nil	52	57 2 -
to Town -	1	1 16 9	4	4 9 1	-	- -	-	- -	3	2 11 9	4	4 1 5	-	12	12 19 -
OTAL - - -	-	17 14 3	-	38 3 1	-	- 8 2	-	1 2 -	-	4 10 9	-	8 2 9	-	64	70 1 -

(2.)—OUTWARDS.

n to Sea -	1	- 9 9	8	6 14 3	-	- -	-	- -	1	- 11 3	2	1 7 -	nil	12	9 2 3
to Sea - -	6	4 12 6	27	14 18 6	-	- -	2	1 9 4	3	1 15 -	2	1 3 4	-	40	23 18 8
OTAL - - -	-	5 2 3	-	21 12 9	-	- -	-	1 9 4	-	2 6 3	-	2 10 4	-	52	33 - 11

SCILLY.

NAMES of PILOTS.—The Persons mentioned at p. 38 of Parl. Paper, No. 287 of 1860, are still acting.

RATES.—The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, pp. 70, 71.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

TANCES or which LOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No,	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
a to Scilly -	47	41 16 3	3	3 12 -	89	201 3 -	1	5 4 3	84	188 17 4	2	4 19 8	nil	226	445 12 6
ys, Tide Work, ifting Berth.	-	- -	-	- -	1	2 2 -	-	- -	4	3 7 6	-	- -	-	5	5 9 6
TOTAL - - -	-	41 16 3	-	3 12 -	-	203 5 -	-	5 4 3	-	192 4 10	-	4 19 8	-	-	451 2 -

(2.)—OUTWARDS.

Sea - -	40	34 4 5	2	2 12 -	87	196 4 6	1	5 4 3	82	182 19 8	2	4 19 8	nil	214	426 4 6

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

SHOREHAM.

NAMES of PILOTS.

John Merrix	aged 57	William Courteney	aged 51
John Bartley	62	Robert Brazier	44
William Parish	59	William Brazier	34
George Courteney	52	Walter Richards	40
James Page	61	Henry H. Upperton	34
Francis Child	53	Charles Sawyer	31

Limits of License:—From Sea into of Shoreham, and from the Port of S to Sea, and backward and forward w said Port, and on the Coast from Br stone exclusive westward to the Ow from the Owers eastward to Brighth exclusive, and into and out of all a within those limits, except the Port of

Cornelius Perrin	aged 52
James Lawrence	49
Philip Lawrence	53
William Legg	38

Limits of License:—From Selsea Bill to the west end of the Owers, and for the neighbourhood of the Owers within and without the Sands near the same and the Park; and to continue in charge from the Owers into Spithead of all ships and vessels that have sailed from the Park, or which he may have had charge of when in distress in the neighbourhood of the Owers, the Commanders consenting thereto.

RATES.—The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, p. 72.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOT
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.	
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		
From Sea to Harbour -	11	6 9 6	497	602 1 2	-	- - -	20	23 5 6	12	10 - 5	33	35 9 4	nil -	573

(2.)—OUTWARDS.

From Harbour to Sea -	3	2 2 10	509	208 10 2	-	- - -	10	5 15 -	4	1 12 6	41	19 2 6	nil -	567
Distance Money (Selsea District).	6	7 10 -	1	3 10 -	7	49 19 6	-	- - -	1	8 10 -	-	- - -	nil -	15
TOTAL - - -	-	9 12 10	-	212 - 2	-	49 19 6	-	5 15 -	-	10 2 6	-	19 2 6	-	582

SOUTHAMPTON.

NAMES of PILOTS.—The Pilots mentioned at p. 37 of Parl. Paper, No. 243 of 1861, are still acting, with the except Robert Pearce, in whose place John Nicholls, aged 24, has been appointed.

RATES.—The Rates of Pilotage and Regulations are the same as printed in Parl. Paper, No. 516 of 1855, p. 74.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—SOUTHAMPTON—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES. for which ILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
to Southampton -	–	– –	2	15 3 –	4	18 12 –	5	17 15 6	13	54 13 6	6	21 – –	nil	30	127 4 –
thead to Southamp-	7	8 10 –	3	5 – –	7	12 8 6	3	4 10 –	8	12 18 –	31	56 7 –	–	59	99 13 6
ke's Bay to South-	8	8 5 4	2	5 1 6	1	2 10 –	1	1 1 –	1	1 – –	–	– –	–	13	17 17 10
ves to Southampton	1	1 10 –	1	2 – –	–	– –	1	1 2 –	3	4 12 6	–	– –	–	6	9 4 6
mbles to Southamp-	4	5 5 6	2	2 4 3	7	7 17 –	13	19 10 6	12	13 6 –	6	10 10 –	–	44	58 13 3
shot to Southampton	7	6 13 –	2	1 15 4	3	3 8 –	–	– –	2	2 8 –	1	– 18 –	–	15	15 2 4
p to Southampton -	7	8 14 –	1	1 6 –	17	27 8 6	111	199 13 6	4	6 8 –	2	4 14 –	–	142	248 4 –
out of Places within strict, and Docking.	503	286 12 9	36	26 – 9	–	– –	–	– –	6	8 12 –	4	3 3 –	–	549	324 8 6
TOTAL - - -	–	325 10 7	–	58 10 10	–	72 4 –	–	243 12 6	–	103 18 –	–	96 12 –	–	–	900 7 11

(2.)—OUTWARDS.

thampton to Sea -	14	50 9 –	3	16 13 –	19	76 7 6	123	664 10 –	28	89 2 6	46	234 5 6	nil	233	1,131 7 6
thampton to Stoke's	–	– –	2	4 4 –	–	– –	2	1 18 6	–	– –	–	– –	–	4	6 2 6
thampton to Cowes	–	– –	1	2 – –	–	– –	–	– –	–	– –	–	– –	–	1	2 – –
uthampton to Spit-	1	– 16 –	–	– –	–	– –	–	– –	–	– –	–	– –	–	1	– 16 –
thampton to Calshot	3	4 – –	1	1 – –	2	1 14 –	–	– –	3	2 12 –	–	– –	–	9	9 6 –
thampton to Bram-	4	3 8 6	2	2 1 –	1	1 19 –	–	– –	2	1 12 –	–	– –	–	9	8 11 6
thampton to Leap -	–	– –	–	– –	–	– –	4	13 17 –	–	– –	–	– –	–	4	13 17 –
outhampton to Ly- n.	–	– –	1	2 8 –	1	2 – –	1	2 8 –	1	2 – –	–	– –	–	4	8 16 –
thampton to Needles	–	– –	–	– –	4	16 9 –	29	193 2 3	1	1 16 –	–	– –	–	34	211 7 3
TOTAL - - -	–	58 13 6	–	28 6 –	–	98 – 6	–	875 15 9	–	97 2 6	–	234 5 6	–	–	1,392 3 9

TEIGNMOUTH.

NAMES of PILOTS.—The Pilots mentioned at p. 41 of Parl. Paper, No. 287 of 1860, are still acting.

RATES.—The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, p. 76.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—TEIGNMOUTH—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOT
	COASTERS.				OVERSEA.				PRIVILEGED.				UN-PRIVILEGED.	
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	A
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£
From Sea to Harbour - -	115	93 17 9	108	116 4 10	8	9 3 8	3	2 18 8	3	2 14 7	11	14 15 11	- - nil -	248	2

(2.)—OUTWARDS.

From Harbour to Sea - -	73	34 1 6	102	55 5 5	2	- 11 3	3	1 8 6	1	- 6 6	9	4 6 4	- - -	190	9

WELLS.

NAMES of PILOTS.

Barber Field - - -	aged 61	Joseph Money - - -	aged 64
Richard Smith - - - -	51	John Allen - - - - -	38
Matthew Wright - - -	68	William Green - - - -	35

Limits of License.—From Burnhar (exclusive) westward to Morton Sluice sive) eastward, and *vice versâ*; and into of the Harbour of Wells.

RATES.

The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, p. 77.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.			TOTA
	COASTERS.				OVERSEA.				PRIVILEGED.		UNPRIVILEGED.	
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	A
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£
From Sea to Harbour -	87	53 5 -	30	19 15 6	2	1 12 -	1	- 13 6	8	8 14 6	nil	128	8

(2.)—OUTWARDS.

From Harbour to Sea -	67	35 12 -	24	14 17 6	1	- 9 -	-	- -	1	- 10 -	-	93	5

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

WEYMOUTH.

NAMES of PILOTS.

Smith - - -	aged 46	Thomas Way - - -	aged 42	*Limits of License.*—From St. Alban's Head to Lyme, and from Lyme to St. Alban's Head; and from Weymouth Harbour to Sea, and from Sea into Weymouth Harbour.	
Tizard - - - -	44	Thomas J. Beale - - -	37		
ks - - - -	40	Edw. Chaddock - - -	31		
Way - - - -	36	F. W. Smith - - - -	26		
Tizard -	aged 79	*Limits of License.*—From Weymouth Harbour to the Roads or Bay, and from the Roads or Bay into the Harbour.	George Pulsford -	aged 45	*Limits of License.*—From St. Alban's Head to Lyme, and from Lyme to St. Alban's Head; and into and out of the Port of Lyme.
Grant - -	42		Robert Holmes - -	48	

RATES.

The Rates of Pilotage are the same as printed in Parl. Paper, No. 287 of 1860, p. 43.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
to Weymouth and Portland	3	2 16 -	8	8 13 -	37	46 6 -	6	5 7 9	36	37 14 8	-	- -	nil	90	100 17 5
eymouth and d Roads to r.	46	69 11 -	7	10 16 6	13	21 18 6	5	7 18 6	24	31 - -	2	4 4 -	-	97	145 8 6
to Lyme -	31	21 5 -	-	- -	3	3 5 -	-	- -	1	1 10 -	-	- -	-	35	26 - -
Money - -	-	- -	-	- -	2	3 3 -	-	- -	2	5 5 -	-	- -	-	4	8 8 -
OTAL - - -	-	93 12 -	-	19 9 6	-	74 12 6	-	13 6 3	-	75 9 8	-	4 4 -	-	-	280 13 11

(2.)—OUTWARDS.

eymouth and d Roads to	1	1 13 -	-	- -	39	52 12 6	3	4 12 -	38	35 6 5	-	- -	-	81	94 3 11
eymouth Har- to Weymouth rtland Roads.	8	9 - 6	2	1 4 -	4	3 7 -	4	5 16 -	11	8 6 6	2	2 16 -	-	31	30 10 -
me to Sea —	37	27 4 -	-	- -	1	- 12 -	-	- -	1	1 - -	-	- -	-	39	28 16 -
Money - -	-	- -	-	- -	-	- -	-	- -	1	2 2 -	-	- -	-	1	2 2 -
OTAL - - -	-	37 17 6	-	1 4 -	-	56 11 6	-	10 8 -	-	46 14 11	-	2 16 -	-	-	155 11 11

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

WOODBRIDGE.

NAMES of PILOTS.

William Clarke - -	aged 56	George Richardson -	aged 65
James Watts - - - -	66	George Richardson, jun. -	44
Micah Frost - - - -	45	Thomas Richardson, jun. -	47
Henry Newson, jun. - -	54	William Smith - - -	49
Thomas Newson - - -	45	Mark Taylor - - -	34
Robert Passiful - - -	36	John Disbury - - -	43

Limits of License.—From Sea over the into Baudsey Haven, and up the said Haven the River Deben to Woodbridge, and *vice versâ*

RATES.

The Rates of Pilotage are the same as stated in Parl. Paper, No. 516 of 1855, p. 80.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	Not Towed by Steam.		Not Towed by Steam.		Not Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount
		£. s. d.		£. s. d.		£. s. d.			£. s.
From Sea to Harbour - -	332	99 3 7	1	- 7 1	3	1 7 -	- - nil - -	336	100 17
From Bowships to Lower Quay	85	30 9 1	-	- -	2	- 14 2	- - - -	87	31 3
From Bowships to Upper Quay	133	47 4 11	-	- -	-	- -	- - - -	133	47 4
From Bowships to Melton -	57	25 5 4	-	- -	-	- -	- - - -	57	25 5
From Bowships to Waldingfield	2	- 12 6	-	- -	-	- -	- - - -	2	- 12
From Bowships to Kingston -	1	- 14 -	-	- -	1	- 12 10	- - - -	2	1 6
TOTAL - - -	-	203 9 5	-	- 7 1	-	2 14 -	- - - -	617	206 10

(2.)—OUTWARDS.

From Melton to Bowships -	60	23 18 -	-	- -	-	- -	- - nil - -	60	23 18
From Upper Quay to Bowships	117	37 8 5	1	- 7 7	-	- -	- - - -	118	37 16
From Lower Quay to Bowships	102	25 11 11	-	- -	1	- 8 4	- - - -	103	26 -
From Harbour to Sea - -	341	87 15 5	-	- -	3	- 16 8	- - - -	344	88 12
From Kingston to Bowships -	1	- 5 10	-	- -	1	- 6 8	- - - -	2	- 12
TOTAL - - -	-	174 19 7	-	- 7 7	-	1 11 8	- - - -	-	176 18

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—*continued.*

YARMOUTH.

NAMES of PILOTS.

Pilots mentioned at p. 41 of Parl. Paper, No. 243 of 1861, are still acting, with the exception of James Halfknight.

RATES of PILOTAGE.

following Rates are to be chargeable on all Vessels taking Pilots on board, on and after the 1st day of March 1861.

DISTANCES for which PILOTED.	For Vessels not exceeding 11 Feet Draft of Water.	For Vessels exceeding 11 Feet, and not exceeding 14 Feet.	For Vessels exceeding 14 Feet.
	£. s. d.	£. s. d.	£. s. d.
he Dudgeon Light, its parallel of latitude, or the northward of, to Orfordness.	5 – –	6 5 –	7 10 –
Smith's Knowl, Yarmouth, or Lowestoft, to Orfordness - - -	1 5 –	2 10 –	3 15 –
Southwold to Orfordness - - - - - - - - -	– 17 6	1 5 –	1 17 6

ote.—An addition of one-fifth is chargeable on the above rates, in case the pilot shall *not* conduct the vessel to any port or place westward of the Nore Light.

	£. s. d.	£. s. d.	£. s. d.
he Dudgeon Light, its parallel of latitude, or the northward thereof, armouth Roads, either within or without the Sands.	2 10 –	3 12 –	6 – –
he Dudgeon Light, its parallel of latitude, or the northward thereof, owns.	10 10 –	12 – –	15 15 –
Smith's Knowl, Yarmouth, or Lowestoft, to Downs - - -	8 8 –	10 – –	12 12 –
Smith's Knowl, Yarmouth, or Lowestoft, to the entrance of the ays.	1 – –	1 10 –	2 2 –
Orfordness to the entrance of the Gatways - - - - -	1 – –	1 10 –	2 2 –

Sea to Yarmouth Roads, through any of the Channels - - -	4 *s.* per foot of the vessel's draft.
Yarmouth Roads, through any of the Channels to Sea - - -	2 *s.* 6 *d.* „ „
Yarmouth Roads, through any of the Channels to Sea for vessels oring and not bound to or from any Port or Place within the District, not making Signal for, or otherwise requiring the services of a Pilot.	1 *d.* „ „

No vessel to pay for less than 11 feet.

inity House, London. *P. H. Berthon,* Secretary.

Into and out of the Harbour of Yarmouth.

		Per Foot.
		s. *d.*
Vessels drawing - - -	8 feet water and under - -	1 6
Vessels drawing above - -	8 feet „ „ 9 feet -	1 9
Vessels drawing - - -	9 feet „ „ 10 feet -	2 –
Ditto - - - - -	10 feet „ „ 11 feet -	2 3
Ditto - - - - -	11 feet „ „ 12 feet -	2 6
Ditto - - - - -	12 feet „ „ 13 feet -	2 9
Ditto - - - - -	13 feet „ „ 14 feet -	3 –
Ditto - - - - -	14 feet „ „ 15 feet -	3 6
Ditto - - - - -	15 feet „ „ 16 feet -	4 –

Note.—An additional 2½ per cent. is to be charged upon the above rates.

s not having British registers are to pay one-fourth more than ships having British registers, except when such first ned ships shall, by any Order of Her Majesty's Most Honourable Privy Council, be privileged to enter the ports of ingdom, upon paying the same duties of tonnage as are paid by British ships; in which case, such ships and vessels aving British registers shall pay the like rates of pilotage only as are payable by ships having British registers; id surplus rate of pilotage chargeable on unprivileged Foreign vessels is to be paid to the Collector of Light Dues at outh.

CORPORATION OF TRINITY HOUSE OF DEPTFORD STROND—YARMOUTH—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTAL	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amc
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£.
From Sea or Orfordness to Roads.	4	8 16 –	–	– – –	20	53 5 –	3	8 4 –	77	194 4 –	4	9 11 –	nil –	108	274
From Roads to Harbour	105	97 15 10	67	77 6 8	16	19 17 6	53	91 6 11	17	19 13 10	45	72 16 4	–	303	378
TOTAL – – –	–	106 11 10	–	77 6 8	–	73 2 6	–	99 10 11	–	213 17 10	–	82 7 4	–	411	652

(2.)—OUTWARDS.

From Roads to Sea –	2	2 15 –	5	4 9 6	37	54 8 4	7	10 2 3	33	47 10 –	5	6 17 6	nil –	89	126
From Harbour to Roads	16	9 15 7½	65	57 12 4	2	1 5 6	38	49 9 1	7	7 19 –	43	43 19 4½	–	171	170
TOTAL – – –	–	12 10 7½	–	62 1 10	–	55 13 10	–	59 11 4	–	55 9 –	–	50 16 10½	–	260	296

SUMMARY OF THE TRINITY HOUSE RETURNS FOR 1861.

As to PILOTS.

Number of Pilots in the London District – – – – – –	377
Number of Pilots in the Outports – – – – – – –	581
Aggregate Number – – – –	958

As to the RECEIPTS for PILOTAGE.

	INWARDS.	OUTWARDS.
	£. s. d.	£. s. d.
Amount received in London District for Pilotage –	81,697 10 10	42,902 11 4
Amount received at the Outports – – – –	26,124 8 11	19,050 – 8
£.	107,821 19 9	61,952 12 –

AGGREGATE RECEIPTS – – – – £. 169,774 11 9

CORPORATION OF THE TRINITY HOUSE, KINGSTON-UPON-HULL.

BYE-LAWS and REGULATIONS.

The Regulations printed at pp. 44 to 46 of Parl. Paper, No. 244 of 1859, are still in force.

NAMES of PILOTS.

Younger Brethren who are Branch Pilots:

See the List of Names printed at pp. 43–45 of Parl. Paper, No. 243 of 1861; delete from that List the following Names, viz.:

Abbott, William.
Davey, George.
Ward, Samuel.
Heron, George.
Tonge, William.
Marshall, Thomas.

dd to it the following, viz.:

t, William	aged 46	*Limits:*	From the Humber, northward, to Flamborough Head, Tinmouth Bar, and the Frith of Forth, up to Leith Roads; eastward, to Heligoland, and the Red Buoy in the Elbe; southward, through Yarmouth Roads, and into the Downs; and southward, through Yarmouth Roads, the Swin, and up to the Nore.
on, James	39	*Limits:*	From the Humber, southward, through Yarmouth Roads, and into the Downs; eastward, to Heligoland, and the Red Buoy in the Elbe; and eastward, to the Naze of Norway, the Scaw, through the Cattegat, the Sound, the Baltic, and Gulf of Finland, to Cronstadt.

EAST COAST.

the East Coast, between the Northness of Dimlington, the Coast of Yorkshire, and St. Edmund's Ness, on the ast of Norfolk:

Along the East Coast to the Downs.

e Persons named at p. 45 of Parl. Paper, No. 243 of for the respective Districts, are still acting.

Along the East Coast to the Southward of the Humber:

The Pilots named in Parl. Paper, No. 243 of 1861, p. 45, are, with the exception of Elvin Boyce, still acting.

Along the East Coast Northward to Leith Roads and Southward to the Downs:

The Persons named in Parl. Paper, No. 243 of 1861, p. 45, are still acting, with the addition of George Hindhaugh, aged 38.

RATES.

The Rates of Pilotage printed at pp. 128 and 129 of Parl. Paper, No. 516 of 1855, are still in force.

Corporation of Trinity House of Kingston-upon-Hull—*continued.*

AMOUNT received for Pilotage of Vessels in 1861.

To the Humber and along the East Coast.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s.
From Boston Deeps to the Humber, or the Northness of Dimlington bearing west	–	– – –	–	– – –	1	3 12 –	– – nil – –		1	3 12
From Lynn Deeps to the Humber, or the Northness of Dimlington bearing west	1	3 12 –	–	– – –	7	26 16 –	– – – –		8	30 8
From Boston Deeps to Sutton	–	– – –	–	– – –	1	3 17 –	– – – –		1	3 17
From intermediate distances within the limits mentioned	–	– – –	–	– – –	4	19 1 6	– – – –		4	19 1
Total	1	3 12 –	–	– – –	13	53 6 6	– – – –		14	56 18

From the Humber and along the East Coast.

From the Humber to Downs	3	23 12 6	13	96 6 –	58	482 1 –	– – nil – –		74	601 1
From the Humber to Nore	–	– – –	3	30 18 –	2	11 18 –	– – – –		5	42 1
From the Humber to Yarmouth	–	– – –	3	12 11 9	–	– – –	– – – –		3	12 1
From the Humber, or the Northness of Dimlington bearing west, to Boston Deeps	–	– – –	2	9 4 6	10	46 12 –	– – – –		12	55 1
From the Humber, or the Northness of Dimlington bearing west, to Lynn Deeps	1	3 8 –	10	48 6 –	58	271 4 –	– – – –		69	322 1
From the Humber, or the Northness of Dimlington bearing west, to Blakeney	–	– – –	–	– – –	2	8 4 –	– – – –		2	8
From the Humber to Sunderland	–	– – –	1	2 10 –	6	19 11 3	– – – –		7	22
From the Humber to Shields	–	– – –	1	4 11 –	37	113 15 9	– – – –		38	118
From Sutton to Boston Deeps	–	– – –	2	11 4 –	3	9 17 –	– – – –		5	21
From Sutton to Lynn Deeps	–	– – –	2	8 4 6	–	– – –	– – – –		2	8
From Skegness to Boston Deeps	1	3 6 –	4	12 12 –	1	2 17 –	– – – –		6	18 1
From Skegness to Lynn Deeps	–	– – –	7	23 5 –	4	11 15 –	– – – –		11	35
From intermediate distances within the limits mentioned	4	8 11 6	14	34 2 –	11	25 16 3	– – – –		29	68
Total	9	38 18 –	62	293 14 9	192	1,003 11 3	– – –		263	1,336

Account of the Receipt and Expenditure of Monies received in respect of Pilots and Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
To pilots' poundage, being 5 per cent. on the earnings of such pilots as are younger brethren of the corporation, and of the extra coasting pilots	65 3 –	By income tax	2 4
To income tax	1 6 3	By balance	64 5
£.	66 9 3	£.	66 9

Note.—The above amount is carried to the general account of this corporation.

8 March 1862.

Robert Gill, Warden's Clerk

PORT OF HULL AND RIVER HUMBER.

BYE-LAWS.—The Bye-Laws printed at pp. 107-109 of Parl. Paper, No. 516 of 1855, still remain in force.

NAMES of PILOTS, &c.

censed for the River Humber under e Act 2 & 3 Will. 4, c. 125.

Joseph - -	aged 59
Thomas - - -	55
Benjamin - - -	62
, William Henry - -	45
l, Charles Frederick -	43
rs, Robert - - -	35
, Christopher - - -	27
Isaac - - - -	22
t, James - - -	38
, James - - - -	55
Alexander - - -	57
William - - -	28
, John - - - -	39
Edwin - - - -	26
t, Richard - - -	23
y, Christopher - -	37
y, William Morley - -	35
gill, William - - -	58
Edmund - - -	49
rstone, Henry Hunt -	40
, John Robert - -	39
, William - - -	44
Thomas - - - -	57
, William - - -	35
ield, John - - -	62
y, John - - - -	49
, Thomas - - -	26
son, Benjamin - -	66
son, Joseph - - -	35
on, John - - - -	50
y, Frederick William -	46
y, William - - -	29
ie, Wellington - - -	47
od, Thomas - - -	43
Fisher Scott - - -	57
ham, Stephen William -	48
ell, William - - -	51
ns, William Straton - -	38
kin, George - - -	31
nam, William - - -	39
ridge, John - - -	37
itt, Robert - - -	53
ott, Richard - - -	37
William - - - -	57
rs, Edward - - -	47
an, Thomas William - -	33
nson, James Threadgold -	29
John - - - - -	31
Smith, Robert - - -	aged 58
Saunders, Henry - - -	60
Shay, William - - - -	30
Stevenson, James - - -	49
Stocks, Joseph - - -	36
Smith, John - - - -	25
Simpson, John - - - -	25
Skelton, Thomas - - -	33
Thompson, Thomas William -	39
Thompson, William Cockrill -	26
Winter, John - - - -	55
Walker, Henry - - -	57
Ward, Hugh - - - -	57
White, Charles - - - -	42
Wilson, Thomas - - -	31
Ward, Pearson - - -	31
Wilkinson, Frederick George -	25
Ward, Hugh, the younger -	24
Wilkin, John - - - - -	26

Limits: Into and out of the Port of Kingston-upon-Hull, and of the Port of Great Grimsby, in the county of Lincoln, and upon any part of the River Humber below the said Port of Kingston-upon-Hull, and so far out at sea, as to bring the Northness of Dimlington, on the coast of Holderness, to bear or be seen a sufficient distance clear or open of the land to the southward thereof, so as to pass clear of a certain sand or shoal called the New Sand, and also so far along the coast to the northward thereof as the said Northness of Dimlington, and to the southward thereof as a certain point or headland on the coast of Lincolnshire, commonly called or known by the name of Donna Nook.

Pilots licensed for the River Humber, under the Acts 2 & 3 Will. 4, c. 105, and 12 & 13 Vict. c. 81.

Basketter, Charles - -	aged 42
Boyce, Elvin - - - -	39
Lamming, William Hollinshed -	42
Lancaster, Charles - - -	45
Robinson, John - - -	48

Limits: Into and out of the Port of Kingston-upon-Hull, and of the Port of Great Grimsby, in the county of Lincoln, and upon any part of the River Humber below the said Port of Kingston-upon-Hull, and so far out at sea as to bring the Northness of Dimlington, on the coast of Holderness, to bear or be seen a sufficient distance clear or open of the land to the southward thereof, so as to pass clear of a certain sand or shoal called the New Sand, and also so far along the coast to the northward thereof as the said Northness of Dimlington, and to the southward thereof as a certain point or headland on the coast of Lincolnshire, commonly called or known by the name of Donna Nook.

APPRENTICES to the *Humber* Pilotage Service.

William Carr - - -	aged 18
Thomas Crackles - - -	16
Edmund Rogers Frost - -	18
Thomas William Good - -	16
Tom Morrill - - - -	20
Edward Rea - - - -	19
Henry Redfearn - - -	15
Alfred Roberts - - -	18
William Sampson - - -	17
William Wallace - - -	20

Pilots licensed for New Holland, in the County of *Lincoln.*

The Port of Hull and River Humber Pilots are also licensed for New Holland.

Limits: Into and out of New Holland, in the county of Lincoln, and upon any part of the Humber between New Holland aforesaid and the Port of Kingston-upon-Hull, and also into and out of the said Port of Kingston-upon-Hull.

MASTERS and MATES holding PILOTAGE CERTIFICATES.

Pilotage Certificates granted under the Acts 2 & 3 Will. 4, c. 105, and 17 & 18 Vict. c. 104.

Abbott, William - -	aged 46
Beaumont, Benjamin Parker -	44
Brown, John Heugh - -	58
Brown, Matthew - - -	40
Bollands, Thomas - - -	41
Bowes, John - - - -	35
Chew, Richard - - - -	41
Cross, John - - - -	47
Curtis, John - - - -	45
Clark, William - - -	44
Croft, Thomas - - - -	51
Cook, Ibbotson - - -	34
Cuttill, James - - - -	35
Dunipace, Robert - - -	35
Dyson, John - - - -	32
Dawson, Thomas - - -	52
Dossor, Frederick - - -	26
Elder, Robert - - - -	54
Elliott, William - - -	48
Fairburn, Daniel - - -	70
Farr, Thomas - - - -	42
Forth, James - - - -	41

PORT OF HULL AND RIVER HUMBER—*continued.*

Corporation of Trinity House of Kingston-upon-Hull—*continued.*

Port of Hull—*continued.*

Masters and Mates—*continued.*

Foster, George - - aged 44
Fowler, George - - - 43
Farr, William - - - - 47
Faulding, Charles - - - 50

Gardner, John - - - - 43

Hedgecock, William George - 39
Hindson, Thomas - - - 40
Holdridge, John - - - 47
Houlton, William - - - 42
Hoyland, William - - - 31
Hardy, Charles William - - 39
Highley, George - - - 37

Jewitt, Thomas - - - 29

Knowles, Richard Jordan - 48

Lamplough, William - - 49
Leetham, James - - aged 37
Lewis, Charles - - - 50
Lewis, Thomas - - - 46
Lidermore, George - - - 51
Lancaster, Robert - - - 57
Lister, Richard - - - 32

Marshall, Thomas - - - 39
Martin, Richard Hick - - 41
Moor, Benjamin - - - 33
Mortier, George - - - 45
Mason, William Sample - - 33
M'Gregor, Charles - - - 50

Newton, James - - - 41

Pearson, William - - - 42
Perkins, Robert - - - 37

Remmington, John - - - 46
Rutter, James - - - - 33
Raynor, Richard - - ag
Ritches, Mitchel Bloye - -

Soulsby, Henry - - -
Soulsby, George - - -
Snow, William Ewart - -
Soulsby, Richard - - -

Thornham, Jessie - - -
Turner, Robert Denman - -
Tully, William - - - -

Wharton, John - - -
Watkinson, William Henry -
Whitton, James - - -
White, Charles Taylor - -
Wintringham, William - -
Woodhead, Thomas - - -

Limits: The same as those for the Pilots are licensed.

Masters holding Pilotage Certificates for New Holland, Grimsby, *and* Kingston-upon-Hull *and* Grimsby, *respecti*

The particulars given at p. 47 of Parl. Paper, No. 243 of 1861, are applicable to this Return.

Master holding a Pilotage Certificate for the Port of Kingston-upon-Hull, *and the* River Humber *between the Port and* Ferriby Sluice.

Oswell, Thomas - - - aged 28 { *Limits:* Into and out of the Port of Kingston-upon-Hull, and the waters thereof, and upon of the River Humber between the said Port and a certain part of the said River Humb Ferriby Sluice, and *vice versâ*.

RATES of PILOTAGE.

HULL - - -
NEW HOLLAND -} The Rates printed at pp. 129, 130 of Parl. Paper, No. 516 of 1855, are still in force.

GREAT GRIMSBY - The Rates printed at p. 45 of Parl. Paper, No. 354 of 1856, are still in force.

CORPORATION OF TRINITY HOUSE OF KINGSTON-UPON-HULL—*continued.*

HULL—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

PORT OF HULL.—(1.) INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.				UNPRIVILEGED.	TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.						
	Vessels Laden.		Vessels in Ballast.		Vessels Laden.		Vessels in Ballast.		Vessels Laden.		Vessels in Ballast.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
...ice at Sea where the Northness ... bears west-south-west to the ... Kilnsea North Cliff, to Hawke ...msby Roads	1	– 16 3	1	– 10 –	6	7 11 3	1	1 15 –	19	28 19 5	4	2 10 10	nil	32	42 2 9
...the Port of Kingston-upon- ...	10	13 5 10	7	10 12 4	483	1,472 17 –	11	18 7 4	1,254	3,521 17 5	24	43 16 7	–	1,789	5,080 16 6
...lew Holland	–	–	–	–	–	–	–	–	1	1 3 –	–	–	–	1	1 3 –
...ance at Sea where Kilnsea ...bears west-north-west to the ... the New Sand Buoy, or the ...it Vessel at the entrance of ...umber, to Hawke Roads or ...ls	–	–	–	–	–	–	–	–	1	– 15 –	–	–	–	1	– 15 –
...the Port of Kingston-upon- ...	6	5 11 –	1	– 16 –	89	198 6 3	10	12 12 –	143	321 1 6	–	–	–	249	538 6 9
...Sand Buoy or the Floating ...at the entrance of the River ...e eastward of the Point where ...ligh Lighthouse bears north- ...se Roads or Grimsby Roads	–	–	–	–	–	–	–	–	1	– 10 –	–	–	–	1	– 10 –
...n High Lighthouse bearing ...Hawke Roads or Grimsby	–	–	–	–	–	–	–	–	1	– 15 –	–	–	–	1	– 15 –
...the Port of Kingston-upon- ...	1	– 14 10	2	2 13 8	45	88 7 –	1	1 11 6	66	119 19 2	1	1 18 6	–	116	215 4 8
...rke Roads, the Buoy of the ... Grimsby Roads, to the Port ...pon-Hull	8	7 3 8½	4	2 17 6	42	59 15 8	4	3 7 9½	35	50 11 9	3	3 – 3	–	96	126 16 8
...th Roads to the Port of King- ...ll	–	–	–	–	1	– 18 –	–	–	–	–	–	–	–	1	– 18 –
...endances, &c.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	82 10 8
TOTAL	26	27 11 7½	15	17 9 6	666	1,827 15 2	27	37 13 7½	1,521	4,045 12 3	32	51 6 2	–	2,287	6,089 19 –

Vessels changing at Hull for Ports and Places above Hull.	Number of Vessels.	Amount of Pilotage below Hull.
		£. s. d.
Amount paid by Vessels which have to take or pay for Two or more Pilots	138	289 16 2

PORT OF GRIMSBY.—(1.) INWARDS.

...ance at Sea where the North- ...llington bears west-south-west ...ward of Kilnsea North Cliff, to ... Docks	–	–	1	2 16 –	106	235 6 10	8	7 14 5	336	736 10 4	16	16 9 –	nil	467	998 16 7
...ance at Sea where Kilnsea ...bears west-north-west to the ... the New Sand Buoy, or the ...ht Vessel at the entrance of the ...er, to the Grimsby Docks	1	1 10 –	1	1 1 3	12	20 1 4	1	1 11 3	29	48 9 3	5	5 10 10	–	49	78 3 11
...y Sand Buoy, or the Floating ...at the entrance of the River ...he eastward of the Point where ...High Lighthouse bears north- ...Grimsby Docks	2	1 9 3	2	– 18 5	17	20 2 6	3	1 9 9½	12	17 9 2	2	2 8 9	–	38	43 17 10
TOTAL	3	2 19 3	4	4 15 8	135	275 10 8	12	10 15 5	377	802 8 9	23	24 8 7	–	554	1,120 18 4

Corporation of Trinity House of Kingston-upon-Hull—*continued.*

Port of Hull—*continued.*

AMOUNT received for Pilotage of Vessels in 1861.

PORT OF HULL.—(2.) OUTWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOT
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.	
	Vessels Laden.		Vessels in Ballast.		Vessels Laden.		Vessels in Ballast.		Vessels Laden.		Vessels in Ballast.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		
From Hawke Roads, or Grimsby Roads, to the distance at Sea where the Northness of Dimlington bears west-south-west to the northward of Kilnsea North Cliff	–	– – –	–	– – –	–	– – –	–	– – –	13	17 3 3	1	– 10 6	nil	14
From New Holland to ditto	–	– – –	–	– – –	2	3 1 –	–	– – –	2	3 7 3	2	1 16 3	–	6
From Hawke Roads or Grimsby Roads to the distance at Sea where Kilnsea North Cliff bears west-north-west to the northward of the New Sand Buoy, or the Floating Light Vessel at the entrance of the River Humber	–	– – –	–	– – –	–	– – –	–	– – –	1	– 15 –	–	– – –	–	1
From the Port of Kingston-upon-Hull to ditto	67	77 6 4	63	76 – 4	371	827 3 5	161	224 1 6	1,140	2,439 11 3	332	403 7 9	–	2,134
From the Port of Kingston-upon-Hull to the Spurn High Lighthouse bearing north-east	2	1 3 9	1	1 1 –	4	5 9 2	11	11 4 7	13	18 14 8	20	16 19 –	–	51
From the Port of Kingston-upon-Hull to the Hawke Roads, the Buoy of the Burcome, or Grimsby Roads	–	– – –	3	2 18 2	–	– – –	2	2 4 10	7	9 5 –	9	10 11 8	–	21
From Hull to New Holland	–	– – –	–	– – –	–	– – –	1	– 5 –	–	– – –	1	– 5 –	–	2
Tidesworks, Attendances, &c.	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	–	–
Total	69	78 10 1	67	79 19 6	377	835 13 7	175	237 15 11	1,176	2,488 16 5	365	433 10 2	–	2,230

Vessels from Ports and Places above Hull changing at Hull.	Number of Vessels.	Amount of Pilotage below Hull.
		£. s. d.
Amount paid by Vessels which have to take or pay for Two or more Pilots	115	210 16 –

PORT OF GRIMSBY—(2.) OUTWARDS.

From the Grimsby Docks to the distance at Sea where the Northness of Dimlington bears west-south-west to the northward of Kilnsea North Cliff	1	– 19 10	–	– –	2	4 5 –	3	3 14 8	4	7 14 –	11	13 6 2	nil	21
From the Grimsby Docks to the distance at Sea where Kilnsea North Cliff bears west-north-west to the northward of the New Sand Buoy, or the Floating Light Vessel at the entrance of the River Humber	2	2 8 –	15	15 1 8	93	164 16 10	41	44 3 7	274	478 12 5	178	186 6 3	–	603
From the Grimsby Docks to the New Sand Buoy, or the Floating Light Vessel at the entrance of the River Humber to the eastward of the Point where the Spurn High Lighthouse bears north-east	–	– – –	–	– – –	–	– – –	–	– – –	–	– – –	1	– 18 –	–	1
Total	3	3 7 10	15	15 1 8	95	169 1 10	44	47 18 3	278	486 6 5	190	200 10 5	–	625

CORPORATION OF TRINITY HOUSE OF KINGSTON-UPON-HULL—*continued.*

r of Hull—*continued.*

UNT of the Receipt and Expenditure of Monies received by the Commissioners acting under the Humber Pilot Act.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
nce from last annual account - -	653	15	11	By amount paid to pilots - - - - -	9,675	15	4
ance received from applicants for ses - - - - - - -	233	2	–	By amount of salaries to clerk and commodore	270	–	–
unt received as contributions to the rannuated Pilots' Fund - - -	204	4	6	By amount paid for poundage to collectors of pilotage in Grimsby, Goole, and Gainsborough - - - - - - - -	140	18	7
unt received for fines, awards, &c. -	60	7	6	By amount paid for incidentals, such as books, stationery, solicitor, taxes, tradesmen's bills, &c. - - - - - - - - -	130	3	4
mount of Inward pilotage - -	7,210	17	4	By amount paid in respect of pilot cutters -	1,451	17	9
mount of Outward pilotage - -	5,144	17	1	By amount paid for pensions to the superannuated pilots - - - - - - -	272	18	6
				By amount paid in weekly relief to pilots' widows - - - - - - - -	140	2	6
				By amount paid as deducted from outward pilotage for apprentices' wages, victuals, turpentine, oil, fares, boatmen, tugs, hooking vessels, receipt stamps, &c. &c. - -	681	10	4
				By balance to be carried to next account -	743	18	–
£.	13,507	4	4	£.	13,507	4	4

ot Office, Hull, 17 January 1862.

Charles Smith,
Clerk to the Commissioners.

PORT OF GAINSBURGH.

BYE-LAWS.

The Bye-Laws printed at pp. 110–112, of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.			MASTERS holding PILOTAGE CERTIFICATES.		
h, John -	aged 55	*Limits.*—Into and out of the Port of Gainsburgh aforesaid, and the waters thereof, and upon any part of the River Humber between the said Port and a certain part of the said River Humber, called Hull Roads; and also into and out of the said Roads, and upon any part thereof.	Clough, John -	aged 35	*Limits.*—The same as those for which the pilots are licensed.
y, Robert -	58		Gledhill, William -	22	
pson, Enoch -	54		Whitton, James -	42	

RATES.

See Parl. Paper, No. 287 of 1860, p. 54. The Rates there referred to are still in force.

CORPORATION OF TRINITY HOUSE OF KINGSTON-UPON-HULL—GAINSBURGH—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.					TOTALS	
	COASTERS.				OVERSEA.		PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s.
From Hull Roads to Gainsburgh.	13	16 10 2	3	3 17 2	6	9 16 –	2	2 3 –	14	20 3 6	nil -	38	52 9
From Hull Roads to Places below Keadby.	–	- -	4	5 1 3	–	- -	–	- -	1	1 11 10½	–	5	6 13
TOTAL - - -	13	16 10 2	7	8 18 5	6	9 16 –	2	2 3 –	15	21 15 4½	–	43	59 2

(2.)—OUTWARDS.

From Gainsburgh to Hull Roads.	17	21 11 1	5	6 8 4	3	4 10 8	7	8 13 10	11	13 4 10	nil -	43	54 6

ACCOUNT of the RECEIPT and EXPENDITURE of all MONIES received by the Sub-Commissioners of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
Pilotage inwards - - - - -	59 2 11	Commission - - - - - -	8 16
Pilotage outwards - - - - -	54 8 9	Boats (44) - - - - - -	2 4
Miscellaneous receipts - - - -	– 5 –	To the pilots - - - - - -	101 15
		Incidental expenses - - - - -	1 –
£.	113 16 8	£.	113 16

Edward Schofield, Headsman.

PORT OF GOOLE.

BYE-LAWS.—The Bye-Laws printed at pp. 112–114 of Parl. Paper, No. 516 of 1855, still remain in force.

NAMES of PILOTS.

Clark, William - - aged 54	Jackson, Thomas - - aged 58	*Limits.*—Into and out of the Port of Goole and waters thereof upon any part of the River Humber between the said Port and a certain part of the River Humber called Hull Roads; and also into and out of the said Roads, and upon any part thereof
Carter, William - - - 44	Wood, Henry - - - 52	
Hailstone, George - - 56		

MASTERS and MATES holding CERTIFICATES for the Port of *Goole*.

Limits.—The same as for the Pilots.

Alsop, Joseph - - - aged 27	Eckles, Leonard - - aged 49	Kay, Thomas - - - ag
Balmforth, William - - - 39	Field, John - - - - 56	Owen, Robert - - - -
Broadhead, John - - - 32	Frank, Edward - - - 46	Ramsey, Thomas - - -
Brown, Thomas - - - 39	Holdridge, John - - - 47	Ruddings, Thomas - - -
Brown, William - - - 46	Hunter, Joseph - - - 46	Tree, William - - - -
Bollands, Thomas - - - 41	Hibbard, John - - - 30	Wadsworth, Gregory Brook -
Bateman, John - - - 40	Hoyland, William - - - 31	Woodhead, Robert - - -
Clarkson, William - - - 45	Ingleby, Christopher - - 29	Wright, Samuel - - -
Cherry, Peter - - - - 34		Wright, John - - - -

CORPORATION OF TRINITY HOUSE OF KINGSTON-UPON-HULL—GOOLE—*continued*.

RATES of PILOTAGE.

See p. 56 of Parl. Paper, No. 287 of 1860. The Rates there referred to still remain in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
Roads to Goole	10	9 12 6	27	22 6 4	37	42 5 –	78	104 7 8	5	8 14 6	45	80 12 8	nil –	202	267 18 8

(2.)—OUTWARDS.

to Hull Roads	6	23 9 6	39	35 16 4	1	2 10 –	40	67 2 2	6	8 18 3	63	96 9 2	nil –	155	234 5 5

ACCOUNT of MONIES Received and Expended by Sub-Commissioners.

RECEIPTS.		EXPENDITURE.	
	£. s. d.		£. s. d.
nt of { Inward pilotage - -	267 18 8	By commission paid to pilot master - -	50 4 3
nt of { Outward pilotage - -	234 5 5	Amount of pilotage paid to the pilots - -	437 – 1
		Boating assistance - - - - -	7 19 –
		Incidental expenses - - - - -	1 11 –
		Poor-rate, office rent, and pilot master's expenses - - - - - -	6 9 9
£.	502 4 1	£.	502 4 1

t Office, Goole, January 1862. *Henry Gale.*

CORPORATION OF TRINITY HOUSE OF KINGSTON-UPON-HULL—*continued.*

SPALDING.

BYE-LAWS.—The Bye-Laws printed at pp. 114–116 of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.—The Pilots mentioned at p. 58 of Parl. Paper, No. 174 of 1858, are still acting.

RATES of PILOTAGE.—The Rates printed at p. 58 of Parl. Paper, No. 174 of 1858, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTAL	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amo
		£. s. d.		£. s. d.		£. s. d.				£.
From Welland Setway to Spalding High Bridge.	2	1 5 –	–	– – –	3	2 15 6	– – nil – –		5	4
From Welland Setway to Fosdyke Bridge.	259	117 6 1½	2	2 – –	6	5 16 6	– – – –		267	125
TOTAL – – –	261	118 11 1½	2	2 – –	9	8 12 –	– – – –		272	129

(2.)—OUTWARDS.

From Fosdyke Bridge to Welland Setway.	194	50 9 9	6	3 12 1½	9	5 5 6	– – nil – –		209	59

ACCOUNT of the Receipt and Expenditure of MONIES received by the Sub-Commissioners of Pilotage.

RECEIPTS.			EXPENDITURE.	
		£. s. d.		£.
To gross amount received from – – – –	Inward pilotage –	129 3 1½	By amount paid for commission to pilot master – – – – – – –	10
	Outward pilotage –	59 7 4½	By amount paid for renewal of licenses, tidesworks, and other expenses – –	6
			By amount of pilotage paid to the pilots –	172 1
	£.	188 10 6	£.	188 1

John Kingston, Recei

CORPORATION OF TRINITY HOUSE OF KINGSTON-UPON-HULL—*continued.*

PORT OF WISBECH.

BYE-LAWS.—The Bye-Laws printed in Parl. Paper, No. 516 of 1855, pp. 116–119, still remain in force.

NAMES of PILOTS.—The Pilots mentioned at p. 54 of Parl. Paper, No. 243 of 1861, are still acting.

RATES of PILOTAGE.—The Rates printed in Parl. Paper, No. 516 of 1855, p. 130, still remain in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.		FOREIGN VESSELS.				TOTALS.	
			PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.				£. s. d.
Lower Roads at Sea to the Keys Bridge.	129	93 19 3	12	13 9 10½	-	nil -	141	107 9 1½
Lower Roads at Sea to h.	41	74 7 9	32	52 11 2	-	- -	73	126 18 11
Pilotage above the Cross ridge.	7	4 12 4	2	1 9 4	-	- -	9	6 1 8
Pilotage below the Lower at Sea.	3	2 12 -	- -	- -	-	- -	3	2 12 -
TOTAL - - -	180	175 11 4	46	67 10 4½	-	- -	226	243 1 8½

(2.)—OUTWARDS.

sbech to the Lower Roads	27	30 6 3	35	46 - 5	-	nil -	62	76 6 8
Cross Keys Bridge to the Roads at Sea.	132	71 14 9	5	3 4 6	-	- -	137	74 19 3
sting Ships through the .	1	1 1 6	- -	- -	-	- -	1	1 1 6
Pilotage beyond the Lower at Sea.	- -	- -	4	3 10 -	-	- -	4	3 10 -
TOTAL - - -	160	103 2 6	44	52 14 11	-	- -	204	155 17 5

ACCOUNT of the RECEIPT and EXPENDITURE of all MONIES received by the Sub-Commissioners of Pilotage.

RECEIPTS.		£. s. d.	EXPENDITURE.	£. s. d.
ss amount received for	Inward pilotage	243 1 8½	By amount of pilotage paid to the pilots -	398 19 1½
	Outward pilotage	155 17 5		
	£.	398 19 1½		398 19 1½

Wisbech, 13 January 1862.

Fra. Jackson,
Secretary to the Sub-Commissioners of Pilotage.

Trinity House, Kingston-upon-Hull,
27 March 1862.

Edw. J. Wilson,
Secretary.

TRINITY HOUSE, NEWCASTLE-UPON-TYNE.

General Regulations.—The Regulations printed in Parl. Paper, No. 516 of 1855, p. 165, are still in force. The follo have since been issued :—

Notice to Pilots.—It is the duty of the River Pilots to conduct ships from the Northumberland and Tyne Docks to any of Shields Harbour, and see them safely moored; but if the ships are going direct to sea, the River Pilot must give u charge to the Sea Pilot as soon as the vessel arrives abreast of the Old Penny Ferry Landing, Old Market Place, South Sh It is the duty of the Up River Pilots to conduct ships from any part of Shields Harbour to the Northumberland and Docks, and also up the river. It is the duty of the Sea Pilots to conduct ships from sea to any part of Shields Harbour as up as Whitehill Point, and to see them safely moored, or to pilot them to the Northumberland, or Tyne Dock Basin, pro they proceed there direct; if anchored, the Sea Pilot to give up to the River Pilot, and without being moored at Sh They are also to transport ships from one part of Shields Harbour to another, as high up as Whitehill Point, and to co them to Sea from their loading berths within the above named district. The Sea Pilot must give up his charge of vessels b up the river to the River Pilot, on arriving off the Old Penny Ferry Landing, South Shields. Sea Pilots are not to pr higher up the river in their cobles than abreast of Whitehill Point; but they are at liberty to attend at the Northumberlan Tyne Docks, and give all the information of which they may be possessed, respecting the vessels in the docks, and the p time for sailing therefrom, or that may be otherwise useful; but they are not to remain on board of vessels, or to interfere the duty of the River Pilots; and they must be in readiness to take charge of sea-going vessels at the appointed place.

Pilots are not allowed to go on the bridge of steamers, or to take charge of any ships out of their district.

By Order,
Trinity House, Newcastle, 7 November 1859. *John Currie*, Secretary

To the Sea Pilots at Shields.—Notice is hereby given, that in future, any pilot bringing a vessel into the Tyne, that is l direct to the Northumberland docks, may take her up to the said docks; but should she anchor or stop at any buoy, pier, or at any place below Whitehill Point, then the Sea Pilot must give the said vessel up to a River Pilot. No Sea P allowed to take any vessel from any part of Shields Harbour above Whitehill Point.

By Order,
Trinity House, Newcastle, 7 June 1858. *John Currie*, Secretary

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PILOTS licensed by the Trinity House for the respective Ports under its Jurisdiction.

SHIELDS.

Licensed to conduct Vessels into and out of Shields Harbour.

See the List of Names printed at p. 55, of Parl. Paper, No. 243 of 1861. Delete the following names, viz. :—

Robert Pearson.	John Taylor Tully.
Thomas Young.	

And add the following, viz. :—

James Purvis	aged 33
Lancelot Burn	31
Thomas Marshall	30
William Marshall	27
John Christopher Morrison	27
John Harrison	27
Thomas Stewart	26

Subject to these alterations, the Persons therein mentioned are still acting.

Pilots at Cullercoats licensed to conduct Vessels into Shields Harbour.

The Persons mentioned at p. 55, of Parl. Paper, No. 243 of 1861, are still acting.

Licensed with Acting Orders to conduct Vessels into and Shields Harbour.

See the List printed at p. 55, of Parl. Paper, No. 2 1861. Delete the following names, viz. :—

James Purvis.	Wm. Marshall.
Lancelot Burn.	Thos. Stewart.
Thos. Marshall.	John Harrison.
Jas. C. Morrison.	

And add the following, viz. :—

William Purvis	aged 2
Jacob Burn	2
Edward Peel	2
Henry Stephenson	2
Edward Purvis	2

Subject to these alterations, the Persons therein men are still acting.

RIVER TYNE.

Licensed to conduct Vessels up the River Tyne.

The Persons mentioned at p. 56, of Parl. Paper, No. 243 of 1861, are, with the exception of John Hall, still acting.

Pilots with Acting Orders for the River Tyne Upwards.

John Peet	aged 24
John Watson	21
John Morton	22

Licensed to conduct Vessels down the River Tyne.

The Pilots mentioned at p. 56, of Parl. Paper, No of 1861, are, with the exception of Moses Campbell, sen Peter L. Wheldon, still acting.

Pilots with Acting Orders for the River Tyne Downw

Peter Lawson Wheldon	aged 2
William Strachan	2
John Brown	2

TRINITY HOUSE, NEWCASTLE-UPON-TYNE—*continued.*

SUNDERLAND.

sed to conduct Vessels into and out of Sunderland Harbour.

e List printed at p. 56, of Parl. Paper, No. 243 of elete the following names in that List, viz.:—

ley Downs. | Storm Thompson.

ld the following, viz.:

rge Lindsay - - - - - -	aged 32
nas Wrightson - - - - - -	32
iam Willing - - - - - -	33
es Brown - - - - - -	30
ert Henry Thompson - - - -	32
n Williamson Dixon - - - -	32
es M'Intosh - - - - -	32
nas Donkin - - - - -	32
William Ellemore - - - - -	aged 32
Harrison Thurlbeck - - - - -	32
John Sanderson - - - - - -	

With Acting Orders for Sunderland.

Thomas Carter - - - - - -	aged 36
William Patterson - - - - -	23
John Munday Wake - - - - -	23
John Tindle Dodds - - - - -	23
Thomas Sutton - - - - -	27
Thomas Donkin - - - - -	26
William Elliott - - - - -	32
Fairley Downs - - - - -	22
John Welch - - - - -	31
William Watson - - - - -	22

SEAHAM.

nsed to conduct Vessels into and out of Seaham.

ersons mentioned at p. 57, of Parl. Paper, No. 243 are still acting.

With Acting Orders for Seaham Harbour.

The Persons mentioned at p. 57, of Parl. Paper, No. 243 of 1861, are still acting.

HARTLEPOOL

sed to conduct Vessels into and out of Hartlepool Harbour.

e List printed at p. 57, of Parl. Paper, No. 243 of he persons there mentioned are still acting, with the of the following, viz.:—

mas Pounder (1st). | Thomas Horsley (2d).
n Brown. | William Hornsby.
mas Pounder (2d). |

With Acting Orders for Hartlepool.

Henry Hood - - - - - -	aged 32
Hunter Bodgey - - - - - -	26
David Spence - - - - - -	27
Richard Pounder - - - - -	28
Robert Spence - - - - - -	24
Thomas Watt - - - - - -	25
Matthew Horsley - - - - -	28

WEST HARTLEPOOL.

l to conduct Vessels into and out of West Hartlepool Harbour and Docks.

ilots mentioned at p. 58, of Parl. Paper, No. 243 of still acting.

With Acting Orders for West Hartlepool and Docks.

The Persons mentioned at p. 58, of Parl. Paper, No. 243 of 1861, are still acting, with the addition of—

John Wood. | James Pounder.
Robert Storrow. |

STOCKTON.

ts licensed to conduct Vessels into and out of the Tees.

e List printed at p. 58, of Parl. Paper, No. 243 of The persons there mentioned are still acting, with the n of

n Denny. | John Hall.

Sea Pilot with Acting Orders for the Tees.

tthew Lamb - - - - - aged 43

Licensed to conduct Vessels up and down the River Tees.

The Persons mentioned at 58, of Parl. Paper, No. 243 of 1861, are still acting, with the exception of the following, viz.:—

John Muirhead. | William Donkin.
Robert Lister. |

WHITBY HARBOUR - - - -
BLYTH HARBOUR - - - -
HARTLEY HARBOUR - - - -
WARKWORTH HARBOUR - - -
ALNMOUTH - - - - - -
NORTH SUNDERLAND - - -
HOLY ISLAND - - - - -

The Pilots mentioned in pp. 58 and 59, of Parl. Paper, No. 243 of 1861, are still acting for their respective districts.

TRINITY HOUSE, NEWCASTLE-UPON-TYNE—*continued.*

CAMBOISE HARBOUR.

Licensed to conduct Vessels into and out of Camboise Harbour.

Charles Barker	aged 40
Josiah Wheatley	48
Joseph Pringle	34

NORTH SEA AND EAST COAST OF ENGLAND.

Licensed to conduct Vessels in the North Sea and East Coast of England.

The Pilots mentioned at p. 59, of Parl. Paper, No. 243 of 1861, are still acting, with the addition of the following, viz.:—

Thomas Christopher Murray	aged 57
Joseph London	45
John Bell (1st)	46
Charles Julius Brandt	48
John Bell (2d)	56
James Jackson	43
William Humble	aged
Daneal King	
Thomas Eltringham	
Samuel Davison	
John Soney Kelso	
George Pottinger	
Thomas Dowell	
John Elliot	
Thomas Chason	
George Gibb	

MASTERS OF HOME TRADE PASSENGER SHIPS Licensed to pilot their own Vessels.

William Elliott Joseph Pratt Robert Colledge Andrew Minto Jeremiah Hudson	*Limits*:—Into and out of Shields Harbour.
James Swallow	*Limits*:—Into and out of Shields Harbour, and into and out of Whitby.
George R. Hodgson	*Limits*:—Into and out of Whitby.

SUMMARY of the foregoing RETURN of PILOTS.

Into and out of Shields Harbour	No. 136
Into Shields Harbour	15
Into and out of Shields Harbour	30
For the River Tyne upwards	24
Ditto - - - ditto	3
For the River Tyne downwards	55
Ditto - - - ditto	3
Into and out of Sunderland Harbour	177
Ditto - - - ditto	10
Into and out of Seaham Harbour	44
Ditto - - - ditto	3
Into and out of Hartlepool Harbour	68
Ditto - - - ditto	7
Into and out of West Hartlepool Harbour and Docks	43
Ditto - - - ditto	9
Into and out of the Tees	28
Ditto	1
Up and down the Tees	
Into and out of Whitby Harbour	
Ditto - - - ditto	
Into and out of Blyth Harbour	
Into and out of Camboise Harbour	
Into and out of Hartley Harbour	
Into and out of Warkworth Harbour	
Into and out of Alnmouth Harbour	
Into and out of North Sunderland	
Into and out of Holy Island	
North Sea and East Coast of England	
Masters of Home Trade Passenger Ships Licensed to pilot their own Vessels	

RATES of PILOTAGE.—The Rates for the respective Ports still remain the same as printed at p. 171, of Parl. Paper, of 1855.

TRINITY HOUSE, NEWCASTLE-UPON-TYNE—*continued.*

AMOUNT received for PILOTAGE of VESSELS into the respective Ports in 1861.

(1.)—INWARDS.

TANCES or which LOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.
Shields - -	3,571	2,433 - 8	1,044	668 8 5	3,473	2,310 10 -	31	25 3 9	8,119	5,437 2 10
s to Newcastle -	672	403 5 6	173	127 6 2	2,960	1,535 18 9	4	2 15 6	3,809	2,069 5 11
Sunderland - -	1,411	828 - 10	109	68 15 -	1,042	652 7 6	7	4 5 3	2,569	1,553 8 7
Seaham - -	3,071	1,561 12 9	127	64 16 3	151	79 3 3	-	- - -	3,349	1,705 12 3
Hartlepool - -	2,349	1,294 2 1	140	101 12 11	1,416	857 3 3	30	22 19 9	3,935	2,275 18 -
o Hartlepool West	1,976	1,033 11 1	747	454 13 9	488	302 17 -	109	57 15 11	3,320	1,848 17 9
Middlesbro' - -	146	118 14 9	69	49 7 10	561	339 1 -	2	1 9 9	778	508 13 4
Stockton - -	8	4 19 10	11	10 14 4	64	45 11 8	-	- - -	83	61 5 10
Whitby - -	779	300 17 5	48	21 18 3	4	2 4 7	-	- - -	831	325 - 3
Blyth - - -	830	404 11 6	215	111 6 -	328	160 5 3	-	- - -	1,373	676 2 9
Warkworth - -	91	40 12 9	189	82 3 3	33	14 10 -	1	- 18 -	314	138 4 -
North Sunderland	5	2 18 6	-	- - -	-	- - -	-	- - -	5	2 18 6
Seaton Sluice -	41	29 18 3	-	- - -	-	- - -	2	- 19 -	43	30 17 3
Alnmouth - -	15	5 8 6	2	- 17 9	-	- - -	-	- - -	17	6 6 3
o North Sea and t.	3	23 - -	68	454 5 -	1	5 - -	-	- - -	72	482 5 -
Holy Island - -	242	113 4 6	-	- - -	1	1 1 -	-	- - -	243	114 5 6
	15,210	8,597 18 11	2,942	2,216 4 11	10,522	6,305 13 3	186	116 6 11	28,860	17,236 4 -

(2.)—OUTWARDS.

s to Sea - -	4,555	4,174 15 1	2,161	2,018 17 -	3,355	2,726 5 7	71	75 13 3	10,142	8,995 10 11
stle to Shields -	1,606	1,060 15 4	699	428 7 6	3,365	1,550 3 -	67	45 13 4	5,737	3,084 19 2
rland to Sea - -	2,215	1,844 18 5	436	389 14 8	1,036	798 2 3	2	1 12 6	3,689	3,034 7 10
n to Sea - -	3,121	2,497 16 3	84	68 2 6	136	94 18 5	-	- - -	3,341	2,660 17 2
pool to Sea - -	2,085	1,794 - -	191	175 8 2	1,268	1,039 11 -	24	22 19 1	3,568	3,031 18 3
epool West Docks	1,697	1,437 19 3	751	645 18 -	357	295 19 2	3	2 5 -	2,808	2,382 1 5
esbro' to Sea - -	285	283 14 3	177	196 3 8	521	454 11 11	1	1 2 9	984	935 12 7
on to Sea - -	9	6 1 -	-	- - -	68	40 16 11	1	- 17 6	78	47 15 5
y to Sea - -	715	267 16 4	48	21 12 -	4	2 4 7	-	- - -	767	291 12 11
to Sea - - -	698	529 19 5	343	263 3 9	319	219 18 5	7	7 4 -	1,367	1,020 5 7
lworth to Sea - -	10	7 10 -	231	187 10 6	26	16 9 -	-	- - -	267	211 9 6
Sunderland to Sea	5	2 5 -	-	- - -	-	- - -	-	- - -	5	2 5 -
n Sluice to Sea -	7	5 - 9	-	- - -	-	- - -	-	- - -	7	5 - 9
uth to Sea - -	17	9 3 6	-	- - -	-	- - -	-	- - -	17	9 3 6
Sea and East Coast	17	148 - -	56	433 - -	216	1,348 10 -	-	- - -	289	1,929 10 -
Island to Sea -	227	111 4 6	-	- - -	-	- - -	-	- - -	227	111 4 6
	17,269	14,180 19 1	5,177	4,827 17 9	10,671	8,587 10 3	176	157 7 5	33,293	27,753 14 6

proportion of these vessels are towed into the different harbours; indeed it is a very rare circumstance to see a vessel enter a harbour

TRINITY HOUSE, NEWCASTLE-UPON-TYNE—*continued.*

ACCOUNT of the RECEIPT and EXPENDITURE of MONIES received in respect of PILOTAGE.

NEWCASTLE.

Dr.	£.	*s.*	*d.*	*Cr.*	£.	*s.*
To balance brought from last account -	2,545	5	4	By amount paid for salaries of secretary, clerk, and other officers - - - -	211	8
To amount of fees received from applicants for licenses and certificates - - -	8	18	6	By amount paid for rent of offices, &c. -	31	4
To amount received as contribution to superannuation or widows' fund - - -	495	11	6	By amount paid for pensions or superannuations - - - - - - - -	206	6
				By balance carried to next account - - -	2,600	16
£.	3,049	15	4	£.	3,049	15

SHIELDS.

Dr.	£.	*s.*	*d.*	*Cr.*	£.
To balance brought from last account -	132	6	4	By amount paid for salaries of secretary, clerk, and other officers - - - -	208
To amount of fees received from applicants for licenses and certificates - - -	20	12	6	By amount paid for rent of offices, &c. -	35
To amount received as contribution to superannuation or widows' fund - - -	576	–	–	By amount paid for pensions or superannuations - - - - - - - -	608
To amount received for fines and forfeitures	6	18	–		
To balance carried to next account - -	116	2	8		
£.	851	19	6	£.	851

SUNDERLAND.

Dr.	£.	*s.*	*d.*	*Cr.*	£.
To amount of fees received from applicants for licenses and certificates - - -	19	5	–	By balance brought from last account -	407
To amount received as contribution to superannuation or widows' fund - - -	120	7	–	By amount paid for salaries of secretary, clerk, and other officers - - -	220
To balance carried to next account - -	531	6	6	By amount paid for rent of offices, &c. -	13
				By amount paid for pensions, or superannuations - - - - - - - -	30
£.	670	18	6	£.	670

NORTH SUNDERLAND.

Dr.	£.	*s.*	*d.*	*Cr.*	£.
To balance carried to next account - -	100	4	7	By balance brought from last account -	82
				By amount paid for salaries of officers -	20
£.	100	4	7	£.	100

TRINITY HOUSE, NEWCASTLE-UPON-TYNE—*continued.*

—continued.

SEAHAM.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
brought from last account -	169	18	11	By amount paid for salaries of officers -	20	–	–
received as contribution to super- n or widows' fund - - -	22	10	–	By amount paid for rent of offices, &c. -	1	10	3
				By balance carried to next acconnt - -	170	18	8
£.	192	8	11	£.	192	8	11

HARTLEPOOL.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
brought from last account -	236	16	9	By amount paid for salaries of officers -	20	–	–
of fees received from applicants ses and certificates - - -	9	10	–	By amount paid for rent of offices, &c. -	2	–	7
received as contribution to super- n or widows' fund - - -	46	6	–	By amount paid for pensions or superannua- tions - - - - - - - -	19	3	11
				By balance carried to next account - -	251	8	3
£.	292	12	9	£.	292	12	9

WEST HARTLEPOOL.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
brought from last account -	67	16	6	By amount paid for salaries of officers -	20	–	–
of fees received from applicants nses and certificates - - -	2	–	–	By balance carried to next account - -	72	16	6
received as contribution to super- n or widows' fund - - -	23	–	–				
£.	92	16	6	£.	92	16	6

STOCKTON.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
e brought from last account -	15	16	3	By amount paid for salaries of officers -	20	–	–
t received as contribution to super- on or widows' fund - - -	13	–	–	By amount paid for pensions or superannua- tions - - - - - - - -	34	4	9
e carried to next account - -	25	8	6				
£.	54	4	9	£.	54	4	9

WHITBY.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
t received for fines and forfeitures	8	5	6	By balance brought from last account -	71	15	2
e carried to next account - -	83	1	8	By amount paid for salaries of officers -	15	–	–
				By amount paid for pensions or superannua- tions - - - - - - - -	4	12	–
£.	91	7	2	£.	91	7	2

TRINITY HOUSE, NEWCASTLE-UPON-TYNE—*continued.*

ACCOUNTS—*continued.*

BLYTH.

Dr.	£. s. d.	*Cr.*	£.
By balance carried to next account - -	112 - 2	By balance brought forward from last account	24
		By amount paid for salaries of officers - -	60
		By amount paid for rent of offices, &c. -	27
£.	112 - 2	£.	112

WARKWORTH.

Dr.	£. s. d.	*Cr.*	£.
To balance carried to next account - -	75 14 6	By balance brought from last account - -	55
		By amount paid for salaries of officers - -	20
£.	75 14 6	£.	75

HOLY ISLAND.

Dr.	£. s. d.	*Cr.*	£.
To balance carried to next account - -	66 17 10	By balance brought from last account - -	36
		By amount paid for salaries of officers - -	20
		By amount paid for pensions or superannuations - - - - - - - -	10
£.	66 17 10	£.	66

ALNMOUTH.

Dr.	£. s. d.	*Cr.*	£.
To balance carried to next account - -	- 10 9	By balance brought from last account - -	-

29 January 1862. *James Gordon,* Under Secret

PORT OF ARUNDEL.

REGULATIONS issued by the COMMISSIONERS of the Port.

The Regulations printed at p. 63 of Parl. Paper, No. 243 of 1861, are still in force.

NAMES of PILOTS.

John Harris - - - - - - - - - - - - - - -	aged 70
Edward Winter - - - - - - - - - - - - - - -	45
Richard Lucas - - - - - - - - - - - - - - -	47

RATES of PILOTAGE.—The Rates are the same as printed at p. 70 of Parl. Paper, No. 174 of 1855.

PORT OF ARUNDEL—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

TANCES or which LOTED.	BRITISH VESSELS. COASTERS. Not Towed by Steam. No.	Amount.	Towed by Steam. No.	Amount.	OVERSEA.	FOREIGN VESSELS. PRIVILEGED. Not Towed by Steam. No.	Amount.	Towed by Steam. No.	Amount.	UNPRIVILEGED.	TOTALS. No.	Amount.
to Harbour (Lit- ton).	72	£. s. d. 45 – –	11	£. s. d. 9 11 11	- nil -	15	£. s. d. 14 4 10	2	£. s. d. 2 – 10	- nil -	100	£. s. d. 70 17 7
to Ford and be- rd.	31	23 10 11	20	26 19 11	- - -	1	– 14 11	–	- -	- - -	52	51 5 9
TOTAL - - -	103	68 10 11	31	36 11 10	- - -	16	14 19 9	2	2 – 10	- - -	152	122 3 4

(2.)—OUTWARDS.

arbour (Little- n) to Sea.	75	24 3 2	12	6 13 4	- nil -	14	6 7 7	3	1 15 2	- nil -	104	38 19 3
and beyond Ford	32	12 4 –	20	13 17 1	- - -	1	– 7 5	–	- -	- - -	53	26 8 6
TOTAL - - -	107	36 7 2	32	20 10 5	- - -	15	6 15 –	3	1 15 2	- - -	157	65 7 9

Note.—The Pilots receive their own fees.

January 1862. *Richard Holmes*, Clerk.

PORT OF BERWICK.

BYE-LAWS and RATES of PILOTAGE issued by the Harbour Commissioners.

The Bye-Laws printed at p. 86, and the Rates at p. 87, of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.

Pilots mentioned at p. 66 of Parl. Paper, No. 287 of 1860, are still acting, with the addition of Prideaux Emery.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

TANCES r which LOTED.	BRITISH VESSELS. COASTERS. Not Towed by Steam. No.	Amount.	Towed by Steam. No.	Amount.	OVERSEA. Not Towed by Steam. No.	Amount.	Towed by Steam. No.	Amount.	FOREIGN VESSELS. PRIVILEGED. Not Towed by Steam. No.	Amount.	Towed by Steam. No.	Amount.	UNPRIVILEGED.	TOTALS. No.	Amount.
to Quay -	19	£. s. d. 44 8 3	208	£. s. d. 128 1 1	2	£. s. d. 1 16 9	15	£. s. d. 12 12 8	5	£. s. d. 3 18 –½	36	£. s. d. 42 2 7½	nil	355	£. s. d. 232 19 5
										Received for 22 tidesworks within the harbour -					8 3 6
														355	241 2 11

(2.)—OUTWARDS.

y to Sea -	5	3 9 –	13	8 13 –	-	- -	1	– 11 3	7	5 16 2	22	19 1 7	nil	48	37 11 –

ACCOUNT of the RECEIPT and EXPENDITURE of MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s. d.
unt of fees received from applicants enses and certificates - - -	1 2 6	By fees for licenses, paid to clerk for parchment, writing signature, &c. - - -	1 2 6

February 1862. *R. Home*, Clerk.

PORT OF BOSTON.

BYE-LAWS and RATES of PILOTAGE issued by the Pilot Commissioners.
The Bye-Laws and Rates printed at pp. 88, 89, of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.—The Pilots mentioned at p. 67 of Parl. Paper, No. 287 of 1860, are still acting.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.	UNPRIVILEGED.			
	No.	Amount.	No.	Amount.		No.	Amount.	No.	Amount
From High Horn to Boston (11 miles).	About 180	£. s. d. 100 13 –	About 10	£. s. d. 16 15 –	- - nil - -	About 11	£. s. d. 13 5 9	201	£. s. 130 13

(2.)—OUTWARDS.

From Boston to High Horn (11 miles).	About 172	92 6 7	About 9	7 17 6	- - nil - -	About 11	9 4 –	192	109 8

No account can be given as regards the vessels towed by steam, as the Steam Towage Company render no account to the Harbour Commissioners

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
To balance brought from last account - -	50 2 9	By amount paid for salaries of clerk and other officers - - - - -	50 11
To gross amount received for { Inward pilotage	130 13 9	By amount paid for in respect of pilot boats, buoys, and tradesmen's bills -	63 11
To gross amount received for { Outward pilotage	109 8 1	By amount paid for pensions or superannuations - - - - - -	47 10
To amount received from the toll of one penny per ton on coals and merchandise - -	195 3 5	By amount received by pilots - - -	240 1
		By interest on advance - - - -	1 13
		By dues returned - - - - -	– 4
		By balance carried to next account - -	81 15
£.	485 8 –	£.	485 8

12 February 1862.

George York, Clerk.

PORT OF BRISTOL.

BYE-LAWS and RATES of PILOTAGE issued by the Town Council of *Bristol*.
The Bye-Laws printed at pp. 90–94, and the Rates at pp. 91, 92, of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.—The Persons mentioned at p. 66 of Parl. Paper, No. 243 of 1861, are still acting.

NAMES of APPRENTICES.

Alfred Lee - - -	aged 14	John Green - - -	aged 20	James Callaway - -	aged
George Coombs - - -	16	William Hunt - - -	18	William Rowland - -	-
Thomas Hunt - - -	17	James J. Craddy - - -	17	James Hunt - - -	-
Thomas Thayer - - -	15	James Ware - - - -	19	Frank Thomas - -	-
Stephen Anstice - - -	21	John Smith - - - -	17	George N. Dickens - -	

PORT OF BRISTOL—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.			FOREIGN VESSELS.		TOTALS.	
	COASTERS.*	OVERSEA.					
		No.	Amount.	No.	Amount.	No.	Amount.
			£. s. d.		£. s. d.		£. s. d.
...ly to Swansea District	Nil	10	42 5 –	29	111 5 –	39	153 10 –
...y to Bridgwater District	–	6	32 10 –	2	9 – –	8	41 10 –
...y to Cardiff District	–	113	650 11 9	377	2,003 14 –	490	2,654 5 9
...y to Newport District	–	19	137 15 –	80	541 6 –	99	679 1 –
...y to Kingroad	–	115	758 10 3	162	988 10 –	277	1,747 – 3
...y to Cumberland Basin	–	308	2,474 13 3	288	2,683 5 9	596	5,157 19 –
...be to Cardiff District	–	9	35 16 6	12	43 16 –	21	79 12 6
...be to Newport District	–	2	10 18 –	2	9 9 –	4	20 7 –
...be to Kingroad	–	3	10 3 –	6	24 1 –	9	34 4 –
...be to Cumberland Basin	–	24	112 1 6	11	69 9 3	35	181 10 9
...head to Cardiff District	–	2	2 15 –	7	8 16 –	9	11 11 –
...head to Newport District	–	– –	– –	1	2 5 –	1	2 5 –
...head to Kingroad	–	3	8 4 –	10	24 16 6	13	33 – 6
...head to Cumberland Basin	–	21	67 10 9	16	67 16 9	37	135 7 6
...es to Newport District	–	2	2 16 –	– –	– –	2	2 16 –
...es to Kingroad	–	2	2 – –	5	6 5 6	7	8 5 6
...es to Cumberland Basin	–	27	67 4 9	15	43 15 3	42	111 – –
...iff to Cumberland Basin	–	– –	– –	4	13 2 6	4	13 2 6
...port to Cumberland Basin	–	1	2 1 6	– –	– –	1	2 1 6
...road to Cumberland Basin	–	112	145 11 3	56	99 17 –	168	245 8 3
TOTAL	–	779	4,563 7 6	1,083	6,750 10 6	1,862	11,313 18 –

(2.)—OUTWARDS.

...berland Basin to Kingroad	Nil	9	10 19 9	3	5 14 9	12	16 14 6
...berland Basin to Newport District	–	40	122 7 3	26	83 16 –	66	206 3 3
...berland Basin to Cardiff District	–	168	515 3 6	173	571 2 9	341	1,086 6 3
...berland Basin to Swansea District	–	5	34 14 3	11	86 11 9	16	121 6 –
...berland Basin to Lundy	–	195	1,500 17 3	126	1,227 12 –	321	2,728 9 3
...road to Cardiff District	–	4	5 2 6	6	6 9 –	10	11 11 6
...road to Swansea District	–	2	10 17 –	– –	– –	2	10 17 –
...road to Lundy	–	38	273 12 –	38	242 17 –	76	516 9 –
...port District to Lundy	–	12	96 15 –	5	42 19 –	17	139 14 –
...iff District to Lundy	–	206	1,201 13 6	328	1,821 18 –	534	3,023 11 6
TOTAL	–	679	3,772 2 –	716	4,089 – 3	1,395	7,861 2 3

* The Coasting and Irish Trade are exempt from Pilotage; and, with vessels under 80 tons, it is optional.

Note.—All vessels are towed by steam from Cumberland Basin to Kingroad, but there is no deductions in consequence.

		£. s. d.	£. s. d.
Gross Amount for Pilotage	Inwards	11,313 18 –	
	Outwards	7,861 2 3	
Gross Receipts £.			19,175 – 3
Deduct Expenses by the Pilots for Wages and Assistance	Inwards	4,447 4 3	
	Outwards	3,164 13 9	
			7,611 18 –
Net Receipts £.			11,563 2 3

...rehampton, Port of Bristol,
25 January 1862.

John Drew, Haven Master.

PORT OF CARDIFF.

BYE-LAWS and RATES of PILOTAGE issued by the Town Council of *Bristol.*

The Bye laws and Rates printed at pp. 98–100 of Parl. Paper, No. 516 of 1855, still remain in force.

NAMES of PILOTS.—The Pilots mentioned at p. 70 of Parl. Paper, No. 287 of 1860, are still acting, with the exception James Lucas and Owen Williams, since deceased.

NAMES of APPRENTICES.

John Scudamore	aged 18	A. Cope	aged 20
D. Williams	18	William Coats	19

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.			FOREIGN VESSELS.			TOTALS	
	COASTERS.*	OVERSEA.		PRIVILEGED.	UNPRIVILEGED.			
		No.	Amount.		No.	Amount.	No.	Amou
			£. s. d.			£. s. d.		£.
From Pennarth Roads to Bute Docks.	- - nil - -	574	478 15 –	- - nil - -	1,060	1,119 4 8	1,634	1,597 1

(2.)—OUTWARDS.

From Bute Docks to Pennarth Roads.	- - nil - -	592	883 13 4	- - nil - -	1,064	1,729 13 4	1,656	2,613

* The Coasting and Irish Trade are free from pilotage, and with vessels under 80 tons it is optional.
Note.—All vessels are towed by steam from the Bute Docks to Pennarth Roads; there is no deduction in consequence.

		£. s. d.	£. s. d.
Gross Amount for Pilotage	Inwards - - - - - - - - -	1,597 19 8	
	Outwards - - - - - - - - -	2,613 6 8	
	Gross Receipts - - - £.		4,211 6 4
Less expenses paid by Pilots Wages, &c.	Inwards - - - - - - -	189 11 8	
	Outwards - - - - - - -	314 14 4	
			504 5 –
	Net Receipts - - - £.		3,707 1 4

Shirehampton, Port of Bristol,
3 February 1862.

John Drew, Haven Master.

PORT OF CHESTER.

BYE-LAWS.—Nil.

NAMES of PILOTS.—*See* the List printed at p. 68 of Parl. Paper, No. 243 of 1861. Delete the names of William Jon. (aged 41) and Captain David Lloyd (aged 42), and add Samuel Bennett (aged 22).

Subject to these alterations, the persons there named, are still acting.

CERTIFICATED MASTERS and MATES.

Joseph Ward (Master of the "Denbigh," Rhyl)	aged 45
Robert Davies (Master of the "Lion," Rhyl)	43
William Williams (Mate of the "Lion," Rhyl)	37
David Williams (Master of the "Sea King," Tranmere)	56

RATES of PILOTAGE.—The Rates printed at p. 69 of Parl. Paper, No. 243 of 1861, are still in force.

PORT OF CHESTER—*continued.*

AMOUNT received for PILOTAGE of Vessels, Inwards and Outwards, in 1861.

s no possibility of obtaining details, as the pilots are distributed over so many miles of shore, and there are no funds to pay for a person to see that proper returns are made by the pilots.

Aggregate Amount of Earnings, as returned by the Pilots - - - - - £. 974 12 10

ACCOUNT of the Receipt and Expenditure of Monies received in respect of PILOTAGE.

Dr.	£. s. d.	*Cr.*	£. s. d.
nt of fees received from applicants enses and certificates - - -	16 10 –	By amount paid for remuneration of secretary, incidental expenses, &c. - - - -	16 10 –

March 1862. *Denis Sweeny*, Clerk.

PORT OF CLAY.

BYE-LAWS.—Nil.

s of PILOTS.—The persons mentioned at p. 69 of Parl. Paper, No. 243 of 1861, are still acting, with the exception of John Johnson, aged 58, in whose place John Otway, aged 35, has been appointed.

RATES of PILOTAGE.—The Rates printed at p. 104 of Parl. Paper, No. 516 of 1855, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.					FOREIGN VESSELS.			TOTALS.	
	COASTERS.				OVERSEA.	PRIVILEGED.		UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.			Not Towed by Steam.				
	No.	Amount.	No.	Amount.		No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.			£. s. d.			£. s. d.
a to Harbour -	175	99 4 3	11	6 10 6	- nil -	3	1 11 3	- nil -	189	107 6 –

(2.)—OUTWARDS.

arbour to Sea -	153	69 1 3	25	13 12 6	- nil -	3	1 1 3	- nil -	181	83 15 –

Note.—The receipts were divided between the pilots.

January 1862. *Thos. W. Bacon*, Clerk.

PORT OF DOUGLAS, ISLE OF MAN.

Bye-Laws.—Nil.

Names of Pilots.—The Persons mentioned at p. 70 of Parl. Paper, No. 243 of 1861, are still acting, with the excepti of Robert Bridson and Robert Marlow.

Rates of Pilotage.—The Rates are the same as printed at p. 105 of Parl. Paper, No. 516 of 1855.

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

BRITISH VESSELS.			FOREIGN VESSELS.			TOTALS.	
COASTERS.		OVERSEA.	PRIVILEGED.	UNPRIVILEGED.			
No.	Amount.			No.	Amount.	No.	Amoun
	£. s. d.				£. s. d.		£. s.
19	16 18 –	- - nil - -	- - nil - - -	16	15 13 –	35	32 11

(2.)—OUTWARDS.

10	6 5 6	- - - - -	- - - - -	9	6 7 –	19	12 12

30 January 1862. *John Clague*, Harbour Maste

PORT OF KING'S LYNN.

BYE-LAWS issued by the Pilot Committee.

The Bye-Laws are the same as printed at pp. 138, 139 of Parl. Paper, No. 516 of 1855.

Names of Pilots.—The Persons mentioned at p. 73 of Parl. Paper, No. 287 of 1860, are still acting, with the exception of John Bayes.

Rates of Pilotage.—The Rates printed at p. 140 of Parl. Paper, No. 516 of 1855, are still in force.

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTAL	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Am
		£. s. d.		£. s. d.		£. s. d.			£.
From Lynn Roads to Lynn Harbour.	1,200	966 2 1¾	67	62 2 10½	71	59 – 4½	- - nil - -	1,338	1,087

(2.)—OUTWARDS.

From Lynn Harbour to Lynn Roads.	1,150	644 4 8	56	37 8 –	70	42 3 10½	- - nil - -	1,276	723

PORT OF KING'S LYNN—*continued.*

ACCOUNT of the Receipt and Expenditure of Monies received in respect of PILOTS or PILOTAGE.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
ce brought from last account - -	–	3	3	By amount divided among the working and superannuated pilots, including the headsman's shares for the use of the sloops, &c. (full share 59 *l.* 2 *s.* 11½ *d.*)	1,830	10	1¼
amount received for Inward pilotage	1,087	5	4¾				
amount received for Outward pilotage	723	16	6½	Wages - - - - - - - -	72	16	–
				Sundries - - - - - - - -	10	7	6
nt received for foreign claims - -	102	13	2	By balance carried to next account - -	–	1	6
£.	1,913	15	1¼	£.	1,913	15	1¼

January 1862. *J. O. Smetham*, Clerk.

PORT OF LANCASTER.

BYE-LAWS and RATES of PILOTAGE.

ye-Laws printed at pp. 142, 143, and the Rates at pp. 143, 144 of Parl. Paper, No. 516 of 1855, still remain in force.

NAMES of PILOTS.

Gerrard - -	aged 55	*Limits of License.*—Sea to Glasson Dock, and out to sea.	
Grimshaw - -	- 30		
Pennington - -	- 37		
d Raby - -	- 19		
Richard Gerrard - -	aged 59	*Limits of License.*—Glasson Dock to Lancaster, and down again.	
William Dickinson -	- 49		
James Spencer - -	- 33		
John Gerrard - -	- 36		
Richard Thompson - -	- 38		

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which LOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
Sea to Glasson	9	7 19 –	4	9 6 –	5	18 3 –	11	42 3 6	2	8 7 6	1	4 – –	nil	32	89 19 –

(2.)—OUTWARDS.

Glasson Dock to	–	- -	1	1 18 –	4	8 12 –	12	30 10 –	1	2 12 –	3	7 2 –	nil	21	50 14 –

PORT OF LIVERPOOL.

Bye-Laws made by the Mersey Docks and Harbour Board, approved by Order in Council, dated 26 June 1861.

With respect to Pilots, Pilot Boats, and Pilotage.

Office of committee, and duties of their secretary.

123. The office of the pilotage committee shall be open during the office hours of the Mersey Docks and Harbour Board, and the secretary shall constantly attend for the purpose of receiving reports and transacting such other business as may be required of him; he shall also summon all meetings of the committee, as well as all persons whose attendance may be required by the committee.

Duties of the superintendent.

124. The duties of the superintendent shall be as follows: To exercise a supervision and control, under the Board, over all the master pilots, pilots, and apprentices, so as to see that the Act and these Bye-laws are duly observed by all in their respective departments; to exact from the master pilots and pilots a report of all occurrences affecting the service, on which the pilotage committee or himself may require information; and it shall be his especial duty to see that the stations are effectively occupied day by day; and he shall have posted in the office, every day, the numbers of the boats on the several stations; and shall report to the committee every case of misconduct or breach of the Bye-laws that may occur. The time of the superintendent shall be wholly devoted to the service of the Board, and his office hours shall be those of the Board.

Crews of pilot-boats.

125. Every pilot boat shall have three masters, to be called the first, second, and third master; and the masters or owners of each boat shall be jointly entitled to take ten apprentices, but they are not to have a greater number than ten in respect of one boat at any time. The pilots shall be appointed to their respective boats by the Board, so, and in such manner, that each boat may carry an equal number, or as nearly so as is practicable; and no pilot shall be removed from a boat to which he shall have been appointed by the Board, without three months' notice in writing on the part of the masters or the pilot, and a copy of such notice shall be left with the clerk of the committee, who shall record the date when it is received.

Duties of the master pilots.

126. The first and second masters of each pilot-boat (and the third master also in case of necessity), are to take command and proceed to sea in her by turns, and the master remaining on shore shall appoint pilots to outward-bound vessels, and transact the other necessary business of the boat. Every master shall maintain due subordination, sobriety, and good order amongst the crew of his boat, both at sea and in port, and shall, whilst in turn for boarding vessels, always use his utmost exertions to approach and board vessels requiring pilots; and every pilot, or other person serving on board, or belonging to the boat, shall at all times cheerfully submit to and execute all the lawful commands of the master. The masters shall on no occasion leave the boats when at sea, except in cases of emergency. They shall keep exact journals of the proceedings of every cruise, which shall contain, in particular, accounts of all vessels boarded or piloted inwards, and the time and place of boarding them; and shall enter in their journals, every two hours, the position of their boats. Whenever the committee may require it, a copy of the journal of any cruise, signed by the master in command for that cruise, shall be sent into the office in time to be submitted to the committee at their next following meeting. The masters shall instruct their apprentices in the use of charts, and in all other matters a knowledge of which is, by the Bye-law numbered 129, required of apprentices on their applying to be licensed.

Duties of individual pilots.

127. All pilots shall repair to their respective boats and proceed in them to their stations, whenever and as often as they are required by the masters; and no pilot, while on service, shall, under any pretence whatever, leave his boat, save on duty. Every pilot, when not actually employed, shall attend daily, at such time and place as may be fixed upon and appointed for that purpose by the master of the boat to which he belongs, to receive such orders and directions as may then and there be given by the said master; and in case the owners, masters, and crew of any boat shall suffer any loss by reason of the non-attendance or neglect of any pilot, such loss shall be borne by the pilot so neglecting or refusing to attend. Every pilot shall, whenever he is required, assist, as far as he is able, in performing all necessary repairs to the boat, her rigging, sails, and materials; and in case of refusal or neglect, the master may employ another person in his stead, the expense whereof shall be deducted from his share of the earnings of the said boat. He shall use his utmost care and diligence to conduct the ships and vessels under his charge without damage or doing injury to others; and shall behave himself with strict sobriety and due respect toward the owners, masters, and officers thereof. He shall order the ensign to be hoisted on entering the port; and on his arrival from sea, either in charge of a vessel or otherwise, he shall as soon as possible give notice thereof to the master of the boat to which he belongs, and shall not leave his vessel until she is safely anchored in the river; nor then leave her without a written permission from the commander, or on being relieved by a pilot of equal class by order of one of the masters of the boat. He shall duly keep the lead going when in charge of any ship or vessel while under weigh; and shall report to the committee all accidents which may have happened to such vessel while under his direction, within 24 hours after his discharge; and no pilot shall lay any vessel aground without a written order from the owner or master. He shall always have with him, when on duty, a good watch, a tide-table, a copy of Part 6 of the Mersey Dock Acts Consolidation Act, 1858, and of so many of these Bye-laws as relate to pilots, pilot-boats, and pilotage, his license, and a pilot flag, as described in the Bye-law, No. 145. On taking charge of a vessel he shall exhibit his license to the officer in command. In the case of outward-bound vessels, he shall repair on board in sufficient time before leaving the dock or basin, to ascertain if the vessel he is about to take charge of is ready for sea, or to anchor in the river. When received on board a pilot-boat from an outward-bound ship, or otherwise, he shall submit to the authority and direction of the master while he remains on board such boat, in all respects as if he were one of her own crew. He shall obey and execute all orders received from the Board or the committee, their secretary, or the superintendent.

Apprentices.

128. Candidates for apprenticeship will be required to prove, to the satisfaction of the Board, that they are able to read and write correctly, and that they have a competent knowledge of arithmetic, before they can be considered eligible for the pilot service. They may then be admitted into one of the following classes:—

1. Candidates of not less than 16 years of age, having served three years at sea, partly in square-rigged vessels, shall (if approved by the Board), after one month's probation, be apprenticed for seven years, and be eligible for examination for a third-class license at the expiration of three years' apprenticeship.
2. Candidates of not less than 15 years of age, having served 18 months at sea, partly in square-rigged vessels, shall (if approved by the Board), after twelve months' probation, be apprenticed for seven years, and be eligible for examination for a third-class license, at the expiration of three years' apprenticeship.

3. All

PORT OF LIVERPOOL—*continued.*

3. All other candidates not less than 15 years of age shall, after twelve months' probation (if approved by the Board), be apprenticed for seven years, and be eligible for examination for a third-class license at the expiration of four years' apprenticeship.

The proposed indentures and satisfactory testimonials, including a surgeon's certificate that the candidate is of sound health, shall in every case be submitted to the Board; and after the indentures have been approved by the Board, and signed by the masters and apprentice, they shall not be cancelled by any private agreement without the permission of the Board; but the Board shall have the power of cancelling any such indentures, either at the request of the parties or upon any misconduct on the part of the apprentice, deserving, in the judgment of the Board, of such punishment; and all indentures shall, by express stipulation therein contained, be made subject to the exercise of this power by the Board. The name of every candidate to be entered in the Pilots' Character Book on his first entering the service.

Qualifications for holding a license as pilot.

129. No person having served in a Liverpool pilot-boat, according to the provisions of the preceding Bye-law, shall be licensed to act as a pilot until he shall also have passed a creditable examination on the following subjects:

He must be able to give a correct and seamanlike description of the harbours, docks, and piers of Liverpool, Birkenhead, Garston, Chester, Beaumaris, Holyhead, Isle of Man, Pile of Foudre, and Fleetwood; he must know the course and distance between any two places within the limits prescribed by the Board; the rise and set of the tides; the depth and character of the soundings; the best anchorages and where to stop a tide; the sand-banks, rocks, shoals, and other dangers; the landmarks, buoys, perches, and lights; the variation and deviation of the compass, and the application thereof; he must be able to set off a ship's position on the chart; he must understand the complete management of a vessel; to bring her to anchor, and to keep her clear of her anchor in a tideway; to moor, unmoor, and get under weigh, and how to handle a vessel under any circumstances.

He must further produce certificates of service as assistant pilot and leadsman in vessels under the charge of a first-class pilot, inward and outward, for every cruise of his boat for twelve months; such certificates to be obtained after the second year of apprenticeship. He must also produce a certificate from his masters as to his conduct and sobriety; and no pilot shall receive a full license without the production of a satisfactory certificate from his masters, unless there shall appear to the Board good reason for deviating from this regulation.

Second and third-class licenses will not be granted between the 25th of September and 25th of March.

Limits of licenses.

130. Second and third-class pilots are limited (except in cases of necessity) to conduct vessels of, but not exceeding, the undermentioned registered tonnage and draught of water, viz.:—

Pilots, 2d class - - - - -	500 tons - - -	16 feet.
„ 3d class - - - - -	250 „ - - -	12 „

Any vessel exceeding the given tonnage and draught which may from necessity take on board a pilot of a class not authorised to conduct her, shall, if possible, exchange him for a duly authorised pilot, out of any boat she may meet, and such boat shall make the exchange, in order that he may be forwarded to the boat on the first western station, to be put on board the first vessel requiring a pilot of the class to which he belongs; and every pilot shall inform the master of any vessel he may be put in charge of, of his true position in the service.

Pilot-boats.

131. Every pilot-boat must be of the burthen of 40 tons or upwards, and must be painted in uniform colours, viz.:—black bulwarks; yellow sheer streak and gunwale; paint streak, green; black bends; white to copper or water line. She must be kept in good repair, and well found with masts, rigging, sails, anchors, cables, and every other necessary material, and shall always have on board an approved chart of the Bay of Liverpool, on which the boundary lines of the several stations hereafter mentioned shall be distinctly marked by the superintendent; also charts of the latest survey of the River Dee, Beaumaris, Holyhead, Isle of Man, Pile of Foudre, and Fleetwood, for the use of the pilots and apprentices; a good telescope, two lanterns, and a swivel, or other small gun, for the purpose of making and answering signals. She must have her number painted on each bow, in white—in figures as large as the depth of the black paint will admit of; and the same number must be painted upon her main and foresails in black figures four feet long. The number on the sails must be painted on the third and fourth cloths from the after leach, and on the mainsail at an equal distance between the upper reef and the gaff. Her name and number, together with the name of the first master, and the port to which she belongs, shall also be painted in large letters and figures upon her stern, one inch broad and three inches long; and good and sufficient accommodations must be provided for the master and crew at the expense of the owners.

Stations and duties of pilot-boats.

132. The boats shall be stationed as follows, viz.:—The first and second boats shall cruise off Point Lynas, or to the northward and eastward of it, as wind and weather may permit, or circumstances may require; but not further to the westward than the Middle Mouse, or eastward than Priestholm Island, bearing S.S.W. by compass.

Of the first and second, or first and second western boats.

The duty of the first boat shall be to offer the services of, and to furnish pilots to, all vessels inward-bound; and for that purpose the master shall use his best endeavours to speak all such inward-bound vessels as may come within the limits of his station, without respect to their being from a foreign voyage or otherwise. And if it becomes necessary for this boat to chase any vessel to the northward, or out of the fair-way track, the second boat shall remain on such station and board all vessels wanting pilots, which vessels shall be exchanged at the end of the cruise.

The duty of the second boat shall be to be near the first, and to see that the master of the first boat does his duty; and also to board and give pilots to any vessel homeward bound that may not have been boarded by the first boat; and, in case the master of the first boat shall refuse, neglect, or omit to put a pilot on board any such vessel requiring one, the master of the second boat shall furnish such vessel with a pilot, and shall note the circumstance, with all the particulars of time, place, and weather, in his journal; and immediately on his return to Liverpool shall report the same to the committee. And as soon as the first boat has left her station the second boat shall succeed to it.

Third, or third western boat.

The third boat shall cruise to the eastward of Point Lynas, but not further eastward than the west end of the Great Ormshead, bearing S.S.W. by compass, and board any vessels that may pass the first and second boats, and when the second boat has left her station this boat shall succeed her.

Fourth, or fourth western boat.

The fourth boat shall cruise as far west as the eastern limit of the third boat, and eastward until Barland bears S.S.W. by compass. The duty of this boat shall be to board and furnish pilots to all vessels requiring them within the limits of her station, whenever the second and third boats may be out of sight, or refuse, or neglect to board, or whenever such vessels shall have passed the limit of the third boat's station; and to see that the second and third boats perform their duty, in like manner as the second boat is to look after the first. And when the third boat has left her station this boat shall succeed her.

PORT OF LIVERPOOL—*continued.*

Fifth, or first Hoylake boat.

The station of the fifth boat shall be to the westward of the N.W. light ship, so far as to keep sight of it from the deck; and shall come to the light ship for the purpose of being relieved, when the boat which is to relieve her arrives at the Bell Buoy, or N.W. light ship, and when relieved she shall take the station of the fourth boat.

Sixth, or second Hoylake boat.

The duty of the sixth boat shall be to board all vessels that are to the eastward of a line drawn from the Point of Ayr and the N.W. light ship, and all vessels to the northward when the first boat is not within a reasonable distance, and she shall every day, after high water, stretch over towards the Bell Buoy for the purpose of taking pilots out of vessels going to sea.

Seventh boat.

The seventh boat shall follow and take the pilots out of vessels outward-bound; for which purpose one of the masters, all the apprentices, and as many pilots belonging to the said boat as shall be required by the master, shall be on board, and as soon as all the pilots are taken on board from vessels outward-bound, she is to return with them to Liverpool. This duty shall be performed by the next boat that has the turn for the second Hoylake station.

Boats not on service.

133. The other boats shall be kept in constant readiness to perform any extra service that may occur, the last boat upon turn for regular service to have the preference; but none of them shall, without the order of the superintendent, leave the port, under any pretence whatever, save to assist vessels in distress or other pressing emergency, or for the purpose of surveying the banks for the instruction of the crews and apprentices; and in case any boat shall be absent, save as aforesaid, when required to go upon the regular service of the port, she shall forfeit her turn.

Boats to take stations by turns.

134. All boats are to take their turn or rotation for service in the same order as they arrive from sea, and in case of more boats than one leaving Liverpool by order of the superintendent to proceed to the stations at the same time, it shall be lawful for the first boat upon turn to commence boarding vessels, and furnishing them with pilots, as soon as she has got to the westward of the Hoylake boat; but it is to be clearly understood, that this privilege extends only to boats actually on their passage to the westward stations, and not after they have arrived there, and that in boarding vessels, when more than one boat is in sight, the first boat upon turn is on all occasions to take precedence.

Penalty for boarding vessels out of turn.

135. The masters and crew of any boat convicted of boarding and piloting any ship or vessel out of her regular turn, shall forfeit every advantage gained thereby, in respect of pilotage inwards and outwards, to the masters and crew of the boat which may be declared by the committee to be entitled thereto.

Boats to carry distinguishing signals when on service.

136. All pilot-boats, whilst upon their stations and in turn for boarding vessels, shall, during daylight, and as a signal offering the services of a pilot, keep constantly flying at the mast-head a red and white flag of large dimensions, the upper horizontal half of which shall be white, and the lower half red, such flag to be carefully kept clean. During the night the boat on turn for boarding shall exhibit lights, in accordance with the Admiralty Regulations for the Pilot Service.

Pilot-boats' annual survey.

137. Every pilot boat in the service shall, once in each year, commencing on the 1st day of April, in such rotations and at such times as may be fixed by the committee, having due regard to the interest and convenience of the service, sail to and make an accurate examination and survey of the following ports and places, namely:—Lancaster, Pile of Foudre, River Wyre, and all ports in the Isle of Man, Holyhead Harbour, Beaumaris, and Chester. The secretary of the committee or the superintendent shall give notice in writing to the master of every boat ordered on this survey, at least 24 hours before the time appointed for sailing, and shall go on board when the boat is ready for sea, and muster the crew; when one of the masters, half of the pilots, and all the apprentices, are hereby directed and required to be present, and to proceed upon and remain on board during the survey, unless reasonable cause of absence can be shown to the satisfaction of the committee; and the masters and pilots shall go upon the survey by turns, so that each individual shall go once in two years. The master shall keep an exact and accurate journal of their proceedings, which shall contain all such remarks and information as he shall make or obtain relative to the lighthouses, landmarks, buoys, perches, and other sea-marks, as well as all rocks, sandbanks, and other dangers, and the depth of water within the limits of the survey. He shall obtain a certificate from some principal officer of the revenue at each of the ports above mentioned that he has visited the port. The journal and certificates shall be delivered to the secretary of the committee or the superintendent within 24 hours after his return to Liverpool. No more time shall be spent on the survey than is necessary for the purposes above mentioned, nor must any ship or vessel be boarded by or furnished with a pilot from any boat whilst on the survey, except such ship or vessel shall be in distress, in which case the particulars of her situation shall be accurately noted in the journal.

Boats to be booked on arrival or departure.

138. Each master is required, after each arrival of his boat from sea, to enter in the Inward-bound Book in the office, within one hour after such arrival if in the daytime, or if in the night by nine o'clock on the morning following, the arrival of his boat, from what station, the time, and where lying, and shall sign his name to such entry. And the master on shore shall enter in the Outward-bound Book the sailing of his boat, the number of the boat and men, the time when and the place from which she has sailed, and to what station she is bound.

Penalty for a boat not proceeding to her station.

139. In the event of the first boat on turn not proceeding to its destination at the proper time, the master in charge shall thereupon become liable to the penalty hereinafter mentioned, and the second boat shall proceed to the station; and in case the master of the second boat shall neglect so to do, he shall thereupon become liable to the like penalty.

Second Hoylake boat to take out pilots to other boats.

140. The boat following boat, or the boat sailing for the second Hoylake station, shall (when required so to do by a written order from the superintendent) take any hands belonging to the boat next on turn for the fourth western or first Hoylake station, and also to any other of the western boats; and the first Hoylake boat or fourth western boat shall receive any pilots so sent, and pass them on to the next western boat, and so on, until they have joined their own boat; but if she has boarded all her hands and left the station, then the boat bringing them down shall board them on the first vessel's wanting pilots.

Ball to be hoisted after boarding all hands.

141. After boarding all hands at the western station, the boat to be relieved shall hoist a ball at her mast-head, and keep it there until answered by telegraph; and the same signal is to be made when abreast of the N.W. lightship, until answered by a ball at Bidston, as a signal for the next boat on turn to proceed.

Boat on first western station to transfer her last two hands to second boat.

142. The boat on the first western station, when she shall have boarded all her pilots except two first class or four of the second and third class, shall (in order that she may return to Liverpool) transfer them to the second boat, which boat shall receive and board them on the first vessel's requiring pilots of their class.

Pilots deprived of their licenses.

143. No master of a pilot boat shall, without the sanction of the Board, carry to sea, or receive on board the boat, or in any other way assist in putting on board any ship or vessel, for the purpose of piloting or conducting

PORT OF LIVERPOOL—*continued.*

conducting her, any person either not duly licensed, or whose license shall have been suspended or withdrawn by an order of the Board, or which shall not have been renewed.

Division of pilotage.

144. The earnings of each pilot-boat, including all compensations and rewards for assisting vessels in distress, shall be divided amongst the owners and crew in the following proportions, viz.:—

Owners, for the boat	2½ shares.
„ for each licensed apprentice	⅔ „
„ for all unlicensed apprentices	1½ „
Masters	1 „
Pilots, first class	1 „
„ second class	⅔ „
„ third class	⅓ „

But the Board have power to alter such apportionments from time to time, in such manner as they shall judge most conducive to the interests of the service. And if any pilot shall be disabled from doing his duty by sickness or bodily hurt, he shall be entitled to two-thirds of a share of the said earnings for the space of three months, provided such sickness or hurt has not been occasioned by drunkenness, gaming, or other vice, the fact to be determined by the Board, upon such evidence as may be brought before them, and provided also that due notice be given to the superintendent and masters of the boat at the commencement of his sickness, accompanied by a medical certificate, if required by the Board.

Each pilot shall deliver all money received by him for pilotage, with an account and vouchers, to the master of the boat to which he belongs, on the day following that on which they are received; or in case of such vouchers and money being received at sea, then they shall be delivered to the said master as soon as he, the said pilot, returns to port, or joins his boat at sea. And all claims for extra days shall be inserted in the certificate for pilotage, and signed for by the master of the vessel.

Pilots to show distinguishing signals.

145. Every pilot shall provide himself with a flag three feet long by two feet broad, corresponding in colour and pattern with the distinguishing number of the boat to which he belongs. On taking charge as pilot of any vessel, he shall cause his flag to be hoisted on board such vessel, at the gaff-end, under the ensign, or wherever it may be most conspicuously seen (except on the foremast), particularly by a pilot-boat in chase, and he shall keep his flag continually flying until he is discharged or relieved by another pilot. This bye-law shall apply to all vessels, outward or inward-bound, at sea or in port, under weigh or at anchor, and under all circumstances, so long as she is in charge of a pilot.

On perceiving a pilot-boat in chase by night, the pilot in charge of the vessel so chased shall cause a light to be hoisted where it may be best seen by the pilot-boat, and he shall direct that this light be lowered and re-hoisted every five minutes, as a signal that the vessel is provided with a pilot.

Lights of vessels at anchor.

146. Pilots in charge of vessels at anchor in the river or channel shall cause white lights to be constantly exhibited at night, one on the forestay and the other at the gaff-end, to be not less than eight feet above the upper top rail of the bulwarks, so long as at anchor in pilot water.

Pilots to obey the orders of the water bailiff, harbour, dock, and pier-head masters.

147. All pilots shall obey the bye-laws of the Board, and also all orders and directions that may be given to them by the water bailiff, harbour, dock, and pier-head masters, relative to the docking, towing, transporting, or removing vessels under their charge.

Rates of pilotage.

148. The following rates of pilotage shall be chargeable in respect of the neighbouring ports hereinafter mentioned; namely,—

Port of Chester, any part north of Hilbre Island	Liverpool rates.
Port of Chester, any part south of Hilbre Island	Liverpool rates, and half as much more.
Lancaster, Fleetwood, or Pile of Foudre	Liverpool rates and travelling expenses.
Beaumaris: Inward-bound	Liverpool rates and travelling expenses.
„ Outward-bound foreign putting into	Liverpool outward rates, half as much more, and travelling expenses.
„ Outward-bound coasting putting into	Liverpool outward coasting rates, half as much more, and travelling expenses.

All pilotage rates are to be charged for every foot of water a vessel may draw, and so in proportion for every half foot, but no allowance to be made for any draught of water above or under half a foot; and no vessel, whatever may be her draught of water, to pay for less than eight feet. No vessel to be deemed a coasting vessel so as to be liable to a reduced rate for pilotage unless she shall *bonâ fide* have been employed in the coasting trade for six months, and if trading outwards, shall sail from the port of Liverpool on a coasting voyage.

If the pilot be not discharged and the pilotage paid within two hours after the vessel is brought to anchor, or given into the charge of the pilots of the place she is bound to, he shall be paid 10*s.* 6*d.* a day for every day or part of a day he may be detained afterwards. Having conducted a vessel into any of the above ports, a pilot shall not join his boat again for the purpose of piloting any other vessel during the cruise on which the boat was engaged at the time he left her. No pilot shall make any agreement for or receive any greater sum of money for pilotage than is allowed by the Act of Parliament and these Bye-laws.

Steamers or other vessels proceeding on an experimental trip not farther than the Bell Beacon or North-west Light-ship shall be charged full outward and half inward pilotage.

Docking or transporting.

The rates for docking and transporting shall be as follows; viz.,—

From one dock to another	£.1 – –
To or from Garston	2 – –

The amount of compensation and travelling expenses to be allowed to pilots carried beyond limits (which are not provided for in this Bye-law), or for extraordinary services, shall in every case be decided by the Board.

Pilots may go to bring vessels from other ports.

149. Any pilot may, upon receiving written authority from the superintendent, proceed to any port or place in the United Kingdom, for the purpose of taking charge of and conducting any ship or vessel to the port of Liverpool. And no vessel having a pilot on board, under this regulation, shall be obliged to take another pilot, or shall be subject to any higher or other rate of pilotage than is established by these Bye-laws or Act of Parliament.

Pilotage of steam vessels.

150. The masters of steam vessels trading from this port to Ireland or Scotland requiring pilots, must apply to the superintendent, who shall thereupon cause to be appointed pilots to such vessels out of the crew of the pilot-boat having the steam turn (namely, the last but one upon turn for service), which pilots so appointed shall be at liberty, if required, to proceed and remain in such vessels during the whole of the voyage upon which they shall then respectively sail, and shall pilot them outward and inwards, for which the

PORT OF LIVERPOOL—*continued.*

the usual and regular rates shall be paid, together with 10*s.* 6*d.* per day for every day of the pilot's absence from Liverpool, including the day of sailing from and the day of arriving in Liverpool. Every pilot, on his return from such voyage, not finding his own boat in port, shall be carried out in the next boat sailing for the station, and put on board his said boat. But in case she shall have returned to Liverpool before he arrives on the station, he shall then be boarded on the first vessel requiring a pilot.

Penalty for sending pilots beyond license limits.

151. Any master of a pilot-boat sending a pilot to take charge of vessels beyond his license limit, except in cases of necessity, shall be fined in the sum of 5 *l.*, subject to be reduced by the Board, if they should think fit.

Extension of license; Penalty for losing a license.

152. For every extension of license the sum of one guinea shall be paid; and on the renewal of any license in place of one lost, a fine of three guineas shall be levied, subject to be reduced by the Board, if they think fit.

Number of pilots left in the boat to be correctly reported.

153. Pilots in charge of ships or vessels, on being hailed by any pilot-boat, shall on all occasions give a true account of the time when they were boarded, and the number of pilots left on board the boat to which they belong. And all masters of pilot-boats, when on any of the westward stations, are also to give a true account of the number of pilots they have on board, whenever they are required so to do by the master of any other pilot-boat.

Pilots are not to hold any share or interest in steam tugs.

154. No owner, part owner, or master of any pilot-boat, nor any pilot or licensed apprentice, shall, at any time while acting as such, have or hold any share or interest in any steam tug company, or in any steam tug, or in any steamboat occasionally used for the purpose of towing vessels.

Cases of complaint not to be compromised.

155. All instances of neglect of duty shall be brought before the Board, and no master pilot shall compromise any offence of a pilot.

Complaints, how to be made.

156. All complaints of offences against the Act of Parliament or the foregoing Bye-laws, or any of them, with respect to pilots, pilot-boats, and pilotage, shall be made in writing, signed by the party aggrieved, and delivered to the secretary of the pilotage committee, or left at the office, as soon as practicable; and such secretary shall summon the party complained of, the party aggrieved, and all such persons as the committee may desire to examine, to attend the meeting of the committee which shall be first held next after the expiration of 48 hours from the time of the receipt by him of such complaint.

Penalty for breach of bye-laws.

157. Every owner, part owner, master, pilot, or licensed apprentice offending against or contravening any of the preceding Bye-laws with respect to pilots, pilot boats, and pilotage, shall for every such offence forfeit and pay the sum of 5 *l.*, which fine, by the Mersey Docks Ferry Accommodation Act, 1860, the Board are empowered to inflict; provided, that the Board shall be at liberty to reduce such fine in any case if they may think fit.

Note.—In addition to this penalty, any pilot acting contrary to the provisions of any of these Bye-laws is liable under the Act of Parliament to have his license recalled or suspended by the Board, and any owner or part owner offending against any of these Bye-laws applicable to pilot-boats, is liable to have his license as owner recalled.

Repeal of all existing bye-laws.

158. The whole of the foregoing Bye-laws shall commence and take effect on the 1st day of June 1861, on which day all Bye-laws which at the time of the commencement of the Mersey Dock Acts Consolidation Act, 1858, were in existence and unrepealed or not withdrawn, shall cease, and as to any further operation thereof are hereby rescinded.

BYE-LAWS made by the MERSEY DOCKS and HARBOUR BOARD, under the 333rd section of "The Merchant Shipping Act, 1854," for the Regulation of Masters and Mates of Ships, who, under the 340th section of the same Act, shall have received Pilotage Certificates from the Board authorising them to Pilot within the limits mentioned in their respective Certificates, the Ships or Vessels in such Certificates named.

1. No person to whom such a certificate shall be granted, shall add to, or in any way alter such certificate, or make or alter any endorsement thereon, nor shall at any time lend such certificate.

2. Every person to whom such a certificate shall be granted, who shall observe any alteration in any of the sands or channels, or that any buoys or beacons of the Board have been driven away, broken down, damaged, or out of place, shall forthwith deliver or send a correct statement thereof in writing to the secretary of the Board.

3. Every person to whom such a certificate shall be granted, shall from time to time conform himself strictly to all directions which shall be given to him by any of the harbourmasters, or by the water bailiff, touching the mooring, unmooring, placing, or removing, of any ship or vessel under his charge, so long as such ship or vessel shall be lying and situate within the limits of the authority of such harbourmasters or water bailiff.

4. Every person to whom such a certificate shall be granted, shall, when in charge of any ship or vessel for which such certificate may have been granted, exhibit from the mast head of such ship or vessel, a distinguishing flag of the usual dimensions, and of two colours, the upper horizontal half red, and the lower horizontal half white, in order to show that such ship or vessel has on board a master or mate qualified to act as pilot thereof.

5. Every person to whom such a certificate shall be granted, shall attend the meetings of the Board, or of their pilotage committee, upon being required so to do, by a notice in writing under the hand of the secretary of such committee, to answer any complaint or charge which may be made against him.

Any person holding such a certificate who shall offend against, or contravene any of the last five preceding Bye-laws, shall, for the first offence, forfeit and pay the sum of 20 *l.*, subject to reduction by the justices by whom the penalty is inflicted; and for any subsequent offence, his certificate shall be annulled or suspended at the discretion of the Board.

6. The last five preceding Bye-laws shall commence and take effect on the first day of June 1861.

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RULES and REGULATIONS respecting the PILOTAGE ANNUITY FUND.

1. Every collector of pilotage shall lay before the pilotage committee, at their next meeting after the 31st of March, 30th of June, 30th of September, and 31st of December in each year, a just and true account of the gross earnings of each and every pilot-boat, and the crew thereof, for which he may have been collector within the three months preceding those dates respectively, without any deduction whatever, which account shall be signed with his name; and he shall pay to the treasurer of the Mersey Docks and Harbour Board 2 *l.* per centum on the amount, to which per-centage the pilots have voluntarily increased the 1 ½ per cent. heretofore payable. The increased rate of per-centage to be paid from the 31st of March 1861.

2. Every licensed pilot, who is not employed in any of the pilot boats, shall, in like manner, lay before the pilotage committee at the times before mentioned, a just and true account of his earnings, and shall pay to the treasurer of the Board the like increased per-centage of 2 *l.* per centum on the amount.

3. The treasurer of the Board shall lay before the pilotage committee, annually at Midsummer quarter, a just and true statement of his several accounts relating to the annuity fund, for the purpose of being audited and approved by the pilotage committee.

4. The monies received for fines, penalties, and forfeitures, shall be applied under the direction of the Board to the relief of casual distress, or for the purpose of increasing the allowances, pensions, or superannuations already granted, or to be hereafter granted, due regard being had in every instance to the recommendation of the licensed pilots.

5. The annuities of licensed pilots retired previous to the 1st of July 1861 shall be revised, and paid according to the following scale, *i. e.*:—

Under 20 years' active service	15 *l.*	per annum.
Over 20 and under 30 years' ditto	20 *l.*	„
Over 30 and under 40 years' ditto	25 *l.*	„
Over 40 years' ditto	30 *l.*	„

6. The annuities of licensed pilots, retiring after the 1st July 1861, shall be calculated at the rate of 1 *l.* per annum for every year of active service (reckoned from the date of first license) of the pilots who are to be superannuated; but no pilot shall receive a superannuation allowance for any period of active service under 10 years. The last-named annuities to commence from the time when the pilots shall cease to receive their individual share of the boat's earnings.

7. The allowance to licensed pilots, who may be rendered unfit for active service by infirmity, sickness, or accident (such pilots having completed not less than five years' active service), shall be 15 *l.* per annum; but if any pilot, to whom a sick allowance is granted, shall have completed more than 15 years' active service, then he shall receive an allowance equal to that which would be granted to him if he were superannuated. The sick allowance to commence from the day on which the pilot ceases to receive a share of the boat's earnings, and to be continued until he is able to return to his duty.

8. The annuities of the widows of pilots deceased, or retired prior to the 1st July 1861, shall be as follows, viz.:—

If said pilot had completed over 4 year's active service	10 *l.*	per annum.
Ditto - - ditto - - - 15 - - ditto - - - - -	15 *l.*	„
Ditto - - ditto - - - 20 - - ditto - - - - -	18 *l.*	„

9. The annuities of the widows of pilots deceased or retired on and after the 1st July 1861, shall be as follows, viz.:—

If said pilot had completed over 4 and under 10 years' active service	10 *l.*	per annum.
Ditto - - - ditto - - 10 and under 15 - ditto - -	15 *l.*	„
Ditto - - - ditto - - 15 and under 20 - ditto - -	18 *l.*	„
Ditto - - - ditto - - 20 and under 30 - ditto - -	21 *l.*	„
Ditto - - - ditto - - 30 and under 40 - ditto - -	24 *l.*	„
Ditto - - - ditto - - 40 years' active service - -	26 *l.*	„

10. The annuities of each of the children of a deceased pilot shall be as follows, viz.:—

If said pilot died prior to the 1st July 1861 - - - - - -	4 *l.*	per annum.
Ditto - - after the 1st July 1861 - - - - - -	5 *l.*	„

The said annuities to be paid until the children respectively attain the age of 14 years, and not longer; but in the event of any such child or children being left without any parents, then such allowance or annuity as would be paid to the mother if living, shall in addition be allowed for the support of said child until it attains the age of 14 years; or for the support of said children, to be equally divided amongst them, and continued, until the youngest surviving child shall have attained the age of 14 years.

11. It is not intended that these regulations shall reduce the allowances which annuitants may have been receiving prior to the 1st of July 1861.

12. The annuities are to be paid quarterly, monthly, or weekly, as the Board may think fit to direct.

13. Widows claiming annuities shall produce certificates of marriage in the usual form, or such other evidence of having been lawfully married as may be satisfactory to the Board.

14. Persons claiming annuities for the children of deceased pilots, shall be required to produce proof of the marriage of the parents, with an attested copy of the registry of their respective baptisms, and such other proof of their actual age as may be satisfactory to the Board.

15. All children of pilots shall be registered within three months from their birth in a book provided for that purpose by the pilotage committee, or be excluded from any benefit from the pilotage annuity fund, to which they otherwise would be entitled.

16. The Board shall appoint a committee of visitors from among the licensed pilots, the said committee to hold office for three years, and to consist of three masters and four pilots, no two of whom shall belong to one and the same boat. The duty of the visitors shall be to visit all the pensioners upon the fund at least once in three months, and to report to the pilotage committee such circumstances concerning the pensioners as the said visitors may think necessary. Any three of the visitors (a master pilot being one) shall be competent to act as a committee.

PORT OF LIVERPOOL—*continued.*

NAMES and AGES of PILOTS and APPRENTICES.

NAME.	AGE.	RANK.	LICENSE.
No. 1 BOAT. SCHOONER "QUEEN."			
William Hughes	55	Master	Full.
Robert Taggart	50	2d ditto	ditto.
Edward F. Callister	46	3d ditto	ditto.
Robert Richardson	44	Pilot	ditto.
Henry Lancaster	42	ditto	ditto.
John Hughes	42	ditto	ditto.
Edward Ledder	39	ditto	ditto.
George K. Dixon	39	ditto	ditto.
Griffith Edwards	37	ditto	ditto.
John B. Prior	37	ditto	ditto.
George H. Rogers	34	ditto	ditto.
Joseph Holt	34	ditto	ditto.
Alfred M. Rogers	32	ditto	ditto.
John Simpson	31	ditto	ditto.
William Jervis	26	ditto	ditto.
Peter White	27	ditto	ditto.
James Barber	29	ditto	ditto.
George Haswell	27	ditto	ditto.
Frederick Simpson	29	ditto	ditto.
John Wissett	28	ditto	ditto.
John Barber	24	Apprentice	500 tons.
Thomas Lewis	24	ditto	250 tons.
George Parkinson	23	ditto	ditto.
John B. Sumner	21	ditto	ditto.
Joseph E. Sumner	21	ditto	None.
Charles H. Jones	21	ditto	ditto.
Henry Day	19	ditto	ditto.
Edward Woods	18	ditto	ditto.
No. 2 BOAT. SCHOONER "LEADER."			
Joseph Powell	42	Master	Full.
John Corrin	49	2d ditto	ditto.
Samuel Jones	46	3d ditto	ditto.
Richard Jones	46	Pilot	ditto.
Humphrey Jones	50	ditto	ditto.
John Williams (*a*)	41	ditto	ditto.
James Casement	33	ditto	ditto.
Richard Spencer	35	ditto	ditto.
Joseph Davies	36	ditto	ditto.
John Christian	33	ditto	ditto.
John Lawrenson	33	ditto	ditto.
James Hudson	30	ditto	ditto.
Thomas Bryce	29	ditto	ditto.
Thomas W. Cockram	29	ditto	ditto.
William Caine	29	ditto	ditto.
John Owen	32	ditto	ditto.
Thomas Parry	30	ditto	ditto.
Benjamin Llewellin	28	ditto	ditto.
George Thompson	24	ditto	ditto.
John Williams (*b*)	40	ditto	500 tons.
Samuel Jones	25	Apprentice	ditto.
Joseph Brewer	26	ditto	250 tons.
Thomas Cornell	23	ditto	ditto.
Frederick Allen	21	lit to	None.
William R. Owen	21	ditto	ditto.
Edward Hill	19	ditto	ditto.
William Crane	18	ditto	ditto.
George H. Dean	18	ditto	ditto.

NAME.	AGE.	RANK.	LICE
No. 3 BOAT. SCHOONER "THE DUKE."			
John Williams	47	Master	Full.
Thomas Parry	43	2d ditto	ditto.
John Sawell	47	3d ditto	ditto.
Cornelius Lancaster	38	Pilot	ditto.
John Williams	41	ditto	ditto.
William Jones	40	ditto	ditto.
Thomas J. Smith	35	ditto	ditto.
Septimus Dixon	34	ditto	ditto.
James Higgin	35	ditto	ditto.
James Porter	46	ditto	ditto.
Richard H. Blundell	32	ditto	ditto.
William T. Roberts	32	ditto	ditto.
Michael Thomas	31	ditto	ditto.
Richard Rowlands	30	ditto	ditto.
Francis C. Beckett	29	ditto	ditto.
Richard Shaw	33	ditto	ditto.
Isaac Williams	28	ditto	ditto.
Anthony Little	26	ditto	ditto.
John M'Namee	27	Apprentice	500 to
Hugh Jones	23	ditto	ditto.
Thomas Edwards	23	ditto	ditto.
George T. Wilkin	25	ditto	250 to
Thorley Lester	24	ditto	ditto.
John Williams	20	ditto	ditto.
John R. Casement	18	ditto	None.
Thomas Dreaper	17	ditto	ditto.
William Harris	18	ditto	ditto.
No. 4 BOAT. CUTTER "AUSPICIOUS."			
John Shepherd	59	Master	Full.
Charles Christie	48	2d ditto	ditto.
John J. Ellison	51	Pilot	ditto.
John Hughes	59	ditto	ditto.
George Dean	47	ditto	ditto.
Thomas H. Edelsten	43	ditto	ditto.
George Bond	37	ditto	ditto.
Charles Long	34	ditto	ditto.
Thomas W. Quirk	34	ditto	ditto.
Joseph Harrison	30	ditto	ditto.
Thomas J. Shepherd	28	ditto	ditto.
Robert M. Raleigh	27	ditto	ditto
James Ward	32	ditto	ditto·
William Draper	30	ditto	ditto.
David Owens	26	ditto	ditto.
Thomas S. Williams	30	ditto	ditto.
James M'Lean	24	ditto	ditto.
Henry Davies	29	ditto	500 to
William Owen	24	Apprentice	ditto.
John Henderson	21	ditto	ditto.
Robert Cosgrove	24	ditto	ditto.
Owen Griffiths	23	ditto	250 to
John Roberts	20	ditto	ditto.
William M'Culloch	20	ditto	ditto.
John Shepherd	20	ditto	None.
William Jones	19	ditto	ditto.

PORT OF LIVERPOOL—*continued.*

NAME.	AGE.	RANK.	LICENSE.
o. 5 BOAT. SCHOONER "VICTORIA and ALBERT."			
illiams - -	45	Master - -	Full.
ckinson -	52	2d ditto -	ditto.
tt - -	45	3d ditto -	ditto.
ghes - -	52	Pilot - -	ditto.
Pritchard -	47	ditto - -	ditto.
oughsedge -	47	ditto - -	ditto.
H. Hyslop -	41	ditto - -	ditto.
Buddle - -	40	ditto - -	ditto.
Tyrer - -	34	ditto - -	ditto.
Pinnington -	39	ditto - -	ditto.
Dean - -	37	ditto - -	ditto.
P. Evans -	28	ditto - -	ditto.
Williams -	30	ditto - -	ditto.
E. Parry -	29	ditto - -	ditto.
Buchanan -	29	ditto - -	ditto.
M'Lachlan -	27	ditto - -	ditto.
ones - -	30	ditto - -	ditto.
Villiams -	32	ditto - -	500 tons.
Miller - -	26	ditto - -	ditto.
hannon -	24	ditto - -	ditto.
berts - -	24	Apprentice -	ditto.
nes - -	23	ditto - -	ditto.
Evans - -	18	ditto - -	ditto.
mbridge -	21	ditto - -	None.
Holden -	20	ditto - -	ditto.
Evans - -	18	ditto - -	ditto.
Hullin -	17	ditto - -	ditto.
No. 6 BOAT. SCHOONER "PIONEER."			
Parry - -	56	Master - -	Full.
Davies - -	45	2d ditto -	ditto.
Hudson -	55	3d ditto -	ditto.
vans - -	53	Pilot - -	ditto.
nes (*a*) - -	42	ditto - -	ditto.
Nowell - -	43	ditto - -	ditto.
nes (*b*) - -	44	ditto - -	ditto.
F. Burrows -	42	ditto - -	ditto.
M. Foster -	49	ditto - -	ditto.
nes (*c*) - -	44	ditto - -	ditto.
W. Wilson -	38	ditto - -	ditto.
ieldhouse -	37	ditto - -	ditto.
Jones - -	36	ditto - -	ditto.
Browne -	32	ditto - -	ditto.
Brewer -	29	ditto - -	ditto.
Ledder - -	32	ditto - -	ditto.
Corrin - -	30	ditto - -	ditto.
ck Ashworth -	26	ditto - -	ditto.
G. Bark -	24	ditto - -	ditto.
Hughes -	30	Apprentice -	500 tons.
oberts - -	22	ditto - -	ditto.
Villiams - -	27	ditto - -	ditto.
H. Irving -	26	ditto - -	250 tons.
ones (*a*) - -	22	ditto - -	None.
ones (*b*) - -	19	ditto - -	ditto.
R. Buckley -	19	ditto - -	ditto.
Dean - -	20	ditto - -	ditto.
Lloyd - -	18	ditto - -	ditto.

NAME.	AGE.	RANK.	LICENSE.
No. 7 BOAT. CUTTER "GEORGE CANNING"			
William Rowlands -	51	Master - -	Full.
John Williams - -	49	2d ditto -	ditto.
John Price - -	37	3d ditto -	ditto.
John Daniels - -	43	Pilot - -	ditto.
Richard Edwards -	41	ditto - -	ditto.
William Jones - -	45	ditto - -	ditto.
John Pritchard - -	44	ditto - -	ditto.
John Williams - -	40	ditto - -	ditto.
Owen Jones - -	39	ditto - -	ditto.
George Pennington -	31	ditto - -	ditto.
Henry Madrell - -	30	ditto - -	ditto.
William Taylor - -	32	ditto - -	ditto.
Edward Callwood -	31	ditto - -	ditto.
Hugh Jones - -	34	ditto - -	ditto.
Thomas Owen - -	35	ditto - -	ditto.
Samuel Dawson -	30	ditto - -	ditto.
Owen Owen - -	31	ditto - -	ditto.
William Parry - -	24	ditto - -	ditto.
Robert Jones - -	24	Apprentice -	500 tons.
John Beattie - -	24	ditto - -	ditto.
Richard J. Owen -	23	ditto - -	250 tons.
William Jones - -	21	ditto - -	ditto.
Samuel Major - -	21	ditto - -	ditto.
William German -	19	ditto - -	None.
John Collum - -	19	ditto - -	ditto.
John Davies - -	20	ditto - -	ditto.
No. 8 BOAT. SCHOONER "PRIDE of LIVERPOOL."			
John Bark - -	61	Master - -	Full.
John Blackley - -	48	2d ditto -	ditto.
William J. M'Cracken	44	3d ditto -	ditto.
Hugh Williams - -	53	Pilot - -	ditto.
William Christie -	50	ditto - -	ditto.
William Evans - -	52	ditto - -	ditto.
Thomas A. White -	52	ditto - -	ditto.
Thomas Martin - -	36	ditto - -	ditto.
John C. Malbon -	33	ditto - -	ditto.
John Bark - -	33	ditto - -	ditto.
George Wilson - -	31	ditto - -	ditto.
Thomas Buckley -	36	ditto - -	ditto.
William P. Owen -	31	ditto - -	ditto.
John Kirkman - -	32	ditto - -	ditto.
Thomas B. Bark -	29	ditto - -	ditto.
William Wilson -	26	ditto - -	ditto.
Richard Pritchard -	31	ditto - -	ditto.
Joseph Martin - -	28	ditto - -	ditto.
James H. Hully -	28	ditto - -	ditto.
William Hurrell -	26	Apprentice -	500 tons.
James Horner - -	24	ditto - -	ditto.
Edward Jones - -	23	ditto - -	ditto.
Charles A. Taylor -	19	ditto - -	250 tons.
William Edwards -	23	ditto - -	ditto.
Henry Halliday -	22	ditto - -	None.
William Long - -	20	ditto - -	ditto.
Robert R. Clark -	20	ditto - -	ditto.
No. 9 BOAT. CUTTER "LIVER."			
Thomas Crane - -	57	Master - -	Full.
William Lancaster -	61	2d ditto -	ditto.
John Pritchard - -	48	3d ditto -	ditto.
John Pepper - -	51	Pilot - -	ditto.

PORT OF LIVERPOOL—*continued.*

NAME.	AGE.	RANK.	LICENSE.
No. 9 Boat. Cutter "Liver"—*continued.*			
Owen Pritchard	35	Pilot	Full.
Jonathan Hodgson	35	ditto	ditto.
Richard Pritchard	32	ditto	ditto.
George Brooks	36	ditto	ditto.
John Noscoe	39	ditto	ditto.
Robert Searchwell	37	ditto	ditto.
William Jones	32	ditto	ditto.
William Crane	30	ditto	ditto.
Samuel Porter	31	ditto	ditto.
Richard H. Whitford	25	ditto	ditto.
Edward R. Musker	27	ditto	ditto.
John Bentley	28	ditto	500 tons.
Robert Silcock	26	Apprentice	ditto.
John Roberts	27	ditto	ditto.
Robert Bispham	25	ditto	ditto.
Richard Richmond	23	ditto	250 tons.
William Taggart	24	ditto	ditto.
Thomas Deacon	23	ditto	ditto.
Richard Scott	19	ditto	None.
George Bird	18	ditto	ditto.
No. 10 Boat. Schooner "Criterion."			
James Wilson	60	Master	Full.
Hugh Williams	53	2d ditto	ditto.
William Parry	50	3d ditto	ditto.
John Evans	53	Pilot	ditto.
Lawrence Woodward	45	ditto	ditto.
William Williams	46	ditto	ditto.
James Crossley	39	ditto	ditto.
John Christie	37	ditto	ditto.
Richard Edwards	38	ditto	ditto.
David Hayes	34	ditto	ditto.
Frederick Thornton	33	ditto	ditto.
Henry Parry	31	ditto	ditto.
Thomas M. Parry	27	ditto	ditto.
Hugh Woodward	29	ditto	ditto.
Thomas Crane	33	ditto	ditto.
Edwin Pickles	27	ditto	ditto.
Charles S. Daniels	25	ditto	ditto.
Thomas Bird	26	ditto	250 tons.
John Ennis	27	ditto	500 tons.
John Gould	28	ditto	ditto.
William Cornell	20	Apprentice	250 tons.
Henry Davies	26	ditto	ditto.
John Morton	20	ditto	ditto.
John Scott	18	ditto	None.
Henry Blundell	19	ditto	ditto.
James Campbell	20	ditto	ditto.
John Maybrick	20	ditto	ditto.

NAME.	AGE.	RANK.	LI
No. 11 Boat. Cutter "Mersey."			
Richard Parry	65	Master	Full
Robert Williams	43	2d ditto	dit
William Harris	47	3d ditto	dit
Richard Williams (*a*)	41	Pilot	dit
John Morris	42	ditto	dit
Robert Nevin	39	ditto	dit
James Durant	38	ditto	dit
George Bridge	37	ditto	dit
John Thomas	36	ditto	dit
Thomas Frith	38	ditto	dit
William Parry	36	ditto	dit
William Peters	35	ditto	dit
James Scarisbrick	31	ditto	dit
John Walters	28	ditto	dit
Richard Williams (*b*)	28	ditto	dit
Owen Lloyd	28	ditto	dit
Joseph Pass	31	ditto	dit
Thomas Lewis	28	ditto	dit
John Thomas	24	Apprentice	500
George R. Thompson	22	ditto	250
Horatio Hawkins	21	ditto	dit
Richard Williams	21	ditto	dit
William Leach	18	ditto	No
Thomas Reason	21	ditto	dit
William B. Bridge	18	ditto	dit
George Martin	19	ditto	dit
No. 12 Boat. Schooner "Perseverance."			
George Bark	58	Master	Ful
John Tunstall	45	2d ditto	dit
Mark N. Bridge	40	3d ditto	dit
William Edwards	43	Pilot	dit
Edward Vickers	37	ditto	dit
William Corrin	39	ditto	dit
Henry Ennis	34	ditto	dit
John Brown	37	ditto	dit
William Thomas	34	ditto	dit
James Christie	30	ditto	dit
Peter Bennett	33	ditto	dit
James Atherton	30	ditto	dit
James Clayton	27	ditto	dit
Thomas D. Worrall	31	ditto	dit
William Jevons	31	ditto	dit
William Whittle	31	ditto	dit
William Coventry	30	ditto	dit
Daniel O'Neill	22	Apprentice	500
James Smith	25	ditto	dit
John Hughes	25	ditto	dit
Daniel Hughes	22	ditto	250
Charles Dunnage	25	ditto	dit
John Hogan	20	ditto	Nor
John Hughes	22	ditto	dit
David Evans	20	ditto	dit
Richard Roberts	18	ditto	dit

Robert P. J. Simpson, Superintendent of P

RATES OF PILOTAGE.—The Rates printed at p. 87, of Parl. Paper, No. 5, Sess. 2, of 1857, are still in force.

PORT OF LIVERPOOL—*continued.*

AMOUNT received for INWARD and OUTWARD PILOTAGE in 1861.

BRITISH VESSELS.

OVERSEA.						COASTERS.						TOTAL.	
INWARD.				OUTWARD.		INWARD.				OUTWARD.		INWARD & OUTWARD.	
Western.		No.	Hoylake.	No.	Amount.	No.	Western.	No.	Hoylake.	No.	Amount.	No.	Amount.
£. s. d.			£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.
15,455 15 2		486	2,285 8 6	2,616	8,331 16 11	117	333 4 9	2,614	2,335 9 –	189	263 3 10	8,227	29,004 18 2
4,456 2 9		174	783 18 –	921	2,690 17 6	26	68 5 6	956	830 3 6	57	67 17 –	2,804	8,897 4 3
19,911 17 11		660	3,069 6 6	3,537	11,022 14 5	143	401 10 3	3,570	3,165 12 6	246	331 – 10	11,031	37,902 2 5

FOREIGN VESSELS.

PRIVILEGED.						UNPRIVILEGED.				TOTAL.	
INWARD.				OUTWARD.		INWARD.		OUTWARD.		INWARD & OUTWARD.	
No.	Western.	No.	Hoylake.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
	£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.
318	12,051 19 7	181	1,744 11 –	1,528	8,147 15 9	16	110 – –	17	82 18 –	3,060	22,137 4 4
472	4,278 9 4	63	443 6 –	542	2,791 13 7	16	116 8 –	8	34 7 –	1,101	7,664 3 11
790	16,330 8 11	244	2,187 17 –	2,070	10,939 9 4	32	226 8 –	25	117 5 –	4,161	29,801 8 3

	No. of Vessels.	AMOUNT.
		£. s. d.
TOTAL AMOUNT of British and Foreign Vessels, Inwards and Outwards –	11,287	51,142 2 6
	3,905	16,561 8 2
	15,192	67,703 10 8

Errors and omissions excepted.

John Leece,
Thomas Hampson.

CASH STATEMENT of the PILOTAGE ANNUITY FUND for 1861.

RECEIPTS.				EXPENDITURE.			
Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
Balance brought from last account –	7,856	11	6	By amount paid for salaries of secretary, superintendent, and office boy – – –	600	12	–
Amount of fees received for licenses –	1,101	15	–	By amount paid for rent of offices at Old Churchyard and Prince's Dock – –	79	13	3
Amount received as contribution to superannuation or widows' fund – – –	1,100	7	9	By amount paid for pensions and superannuations – – – – – – –	1,323	9	11
Amount received for fines and forfeitures – – – – – – – –	75	6	6	By amount paid examination committee for examination expenses – – – – –	105	–	–
Amount received for interest on dock funds and in bank account – – –	243	10	9	By amount paid for expenses of annual survey	58	1	–
Amount received for proceeds of sale of old furniture – – – – – –	6	10	–	By amount paid for furnishing new offices, Prince's Dock – – – – – –	140	7	10
				By amount paid for rates and taxes – –	27	6	2
				By amount paid for stationery and printing	41	14	–
				By amount paid for gas, coal, and water –	14	15	10
				By amount paid for miscellaneous disbursements – – – – – – – –	80	4	–
				By balance carried down – – – –	7,912	17	6
£.	10,384	1	6	£.	10,384	1	6
Balance brought down – – – £.	7,912	17	6				

Dock Office, Liverpool,
14 March 1862.

Geo. J. Jefferson,
Treasurer.

PORT OF LLANELLY.

BYE-LAWS issued by the Llanelly Harbour Commissioners.

The Bye-laws printed at pp. 76–78 of Parl. Paper, No. 243 of 1861, are still in force.

NAMES of PILOTS.

William Lewis (1) - - aged 68	James Randell - - - aged 61	John Hughes - - - a
William Roberts - - - - 62	William Lewis (4) - - - 47	William Hughes (2) - -
William Richards (1) - - - 61	William Christopher - - - 45	John Perrott (2) - - -
Philip Hugh - - - - 63	David Charles - - - - 46	Robert Thomas - - -
John Bowen - - - - 52	William Lewis (3) - - - 50	Thomas Perrott - - -
William Richards (2) - - - 53		
Richard Thomas - - - - 66	Philip Beynon - - - - 42	Daniel Rees - - -
David Richards (2) - - - 46	William Guy - - - - 56	John Edwards - - -
William Wilson - - - - 53	Robert Hopkins - - - - 55	John Voss - - - -
John Perrott (1) - - - - 45	Richard Christopher - - - 39	Henry Morgan - - -
David Richards (1) - - - 65	John Gay - - - - - 44	Henry Winch - - -
William Bowen (2) - - - 52		
William Hughes (1) - - - 51	William Roberts, jun. - - - 39	David Thomas - - -
Rees Hopkins - - - - 70	John Williams - - - - 40	James Winch (auxiliary pilot)
William Lewis (2) - - - 57	Thomas Colebrook - - - 43	Thomas Lewis (auxiliary pilot)
James Lewis - - - - 60	Christopher Lewis - - - 37	Thomas Davis (auxiliary pilot)
	Hector Rees - - - - 49	John Griffiths (auxiliary pilot)

The pilots are licensed for one year.

RATES of PILOTAGE.

See the Rates given in the Bye-laws printed at pp. 82, 83, of Parl. Paper, No. 244 of 1859.

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.		TOTALS	
	COASTERS.		OVERSEA.					
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amo
		£. s. d.		£. s. d.		£. s. d.		£.
From Sea to Llanelly - - -	1,909	1,590 16 2	220	234 3 2	397	265 17 3	2,526	2,090

(2.)—OUTWARDS.

From Llanelly to Sea - - -	1,986	1,396 16 7	263	263 9 2	437	237 1 4	2,686	1,897

No difference between privileged or unprivileged vessels, and the rates are the same whether the vessels are towed by steam or not.

ACCOUNT of the Receipt and Expenditure of Monies received in respect of Pilotage.

Dr.	£.	s.	d.	*Cr.*	£.	
To balance brought from last account - -	1,030	1	7	By amount paid for pilotage - - -	3,991	1
To amount received for pilots' doctor - -	14	–	6	By amount paid owners of cutters and boats	805	1
To amount received for superannuation and sick fund - - - - - - -	220	4	2	By amount paid for superannuation and sick fund - - - - - - -	128	
To amount received for pilot cutters and boats	773	16	–	By amount paid for pilots' doctor - -	14	
To gross amount received for - - - - { Inward pilotage -	2,090	16	7	By balance carried to next account - -	1,086	
{ Outward pilotage -	1,897	7	1			
£.	6,026	5	11	£.	6,026	

31 January 1862.

B. Jones, Clerk.

PORTH CAWL.

BYE-LAWS and RATES of PILOTAGE issued by the Llynvi Valley Railway Company.

The Bye-Laws and Rates printed at pp. 88, 89 of Parl. Paper, No. 174 of 1857, are still in force.

NAMES of PILOTS.

James Pearce - - - - - - -	aged 37	*Limits of License.*—Into and out of Porth Cawl.
John Jones - - - - - - - -	43	
James Cloke - - - - - - - -	36	

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.			TOTALS.	
	COASTERS.				OVERSEA.			PRIVILEGED.			
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		UNPRIVILEGED.	Not Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.			£. s. d.		£. s. d.
d out of Porth Cawl	459	76 7 6	1	– 6 –	–	– –	– nil –	2	– 12 –	462	77 5 6

(2.)—OUTWARDS.

d out of Porth Cawl	457	75 12 6	–	– –	3	1 1 –	– – –	2	– 12 –	462	77 5 6

ACCOUNT of MONIES received in respect of Pilots and Pilotage.

Dr.	£. s. d.	*Cr.*	£. s. d.
amount received for Inward pilotage -	77 5 6	Amount paid for salary of harbourmaster -	155 – –
amount received for Outward pilotage	77 5 6	Amount paid for or in respect of pilot boats, buoys, &c. - - - - - - -	23 11 –
nt received from other sources - -	22 14 –		

February 1862.

Geo. F. Saunders, Secretary.

PORT OF SWANSEA.

REGULATIONS and RATES of PILOTAGE issued by the Harbour Trustees.—The Regulations and Rates printed at pp. 80 to 8 of Parl. Paper, No. 243 of 1861, are still in force.

NAMES of PILOTS.

See the List of Names printed at p. 83 of Parl. Paper, No. 243 of 1861. James Blackmore, Harbour Pilot, has ceased to a and John Mills, aged 53, has been appointed as Sea Pilot.

AMOUNT received in respect of PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.			(2.)—OUTWARDS.		
DISTANCES for which Piloted.	Number of Vessels.	Amount.	DISTANCES for which Piloted.	Number of Vessels.	Amount.
		£. s. d.			£. s. d
From Sea to Swansea - - -	4,129	3,361 15 11	From Swansea to Sea - -	3,701	1,788 9 9

British and foreign vessels are charged the same rates; and no difference is made whether vessels are towed by steam or not.

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
To balance brought from last account - -	515 7 4	By amount paid to pilots - - -	3,691 4
To amount of fees received from applicants for licenses and certificates - - - - -	101 6 6	By amount paid for or in respect of pilot boats and hobblers - - - - -	1,459 -
To amount received as contribution to superannuation fund - - - - - -	110 1 4	By amount paid for pensions or superannuations - - - - - - -	119 19
To gross amount received for - - - - Inward pilotage -	3,361 15 11	By balance carried to next account - -	635 3
Outward pilotage -	1,788 9 9		
To amount received for interest for monies invested - - - - - - -	28 7 9		
£.	5,905 8 7	£.	5,905 8

March 1862.

Lewis Thomas, Clerk.

SCOTLAND.

PORT OF ABERBROTHWICK, OR ARBROATH.

ATIONS issued by the Harbour Trustees.—The Regulations printed in Parl. Paper, No. 516 of 1855, pp. 176, 177, are still in force.

NAMES of PILOTS.

ltormont - - aged 67	Thomas Bremner - - aged 46	Thomas Cargill - - aged 46
er Mill - - - 72	Jacob Tait - - - - 53	Charles Smith - - - - 37
Smith, jun. - - - 47	Thomas Cargill, jun. - - - 34	James Carrie - - - - 39
Cargill - - - 47	James Swankie - - - 41	David Cargill - - - - 41
argill, jun. - - - 43	William Smith, jun. - - - 46	Peter Smith - - - - 66
Tait - - - - 62	William Spink - - - - 36	David Smith - - - - 40
Cargill, jun. - - - 44	James Smith - - - - 60	William Smith - - - - 32
Smith - - - - 42		

RATES of PILOTAGE.—The Rates printed at p. 77 of Parl. Paper, No. 354 of 1856, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.		TOTALS.	
	COASTERS.		OVERSEA.					
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.
. per ton - - -	6	4 5 2	- -	- -	- -	- -	6	4 18 2
Master's Fees - - -	- -	- 13 -						
. per ton - - -	17	7 5 2	- -	- -	- -	- -	17	7 19 8
Master's Fees - - -	- -	- 14 6						
. per ton - - -	- -	- -	18	33 13 9	- -	- -	18	35 15 3
Master's Fees - - -	- -	- -	- -	2 1 6				
. per ton - - -	- -	- -	- -	- -	36	75 6 5	36	79 11 11
Master's Fees - - -	- -	- -	- -	- -	- -	4 5 6		
per ton - - -	567	457 8 -	- -	- -	- -	- -	567	488 11 6
Master's Fees - - -	- -	31 3 6						
TOTAL - - -	590	501 9 4	18	35 15 3	36	79 11 11	644	616 16 6

Note.—Only one charge is made at this Port for both Outward and Inward Pilotage.

PORT OF ABERBROTHWICK, OR ARBROATH—*continued.*

ACCOUNT of the Receipt and Expenditure of MONIES received for Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
To gross amount received for pilotage -	577 18 6	By amount paid for or in respect of pilot boats, buoys, &c. - - - - - -	26 -
To amount received for pilot master's fees -	38 18 -	By amount paid collector, commission for collecting pilotage, 2½ per cent. - -	13 15
		By amount paid to 20 pilots in equal shares -	538 1
		By amount retained by Harbour Trustees towards payment of salary allowed by them to pilot master and assistant pilot master -	38 18
£.	616 16 6	£.	616 16

31 January 1862. *John Macdonald,* Cler

PORT OF ABERDEEN.

REGULATIONS and RATES of PILOTAGE issued by the Harbour Commissioners.—The Regulations printed at pp. 179–181 the Rates printed at pp. 181, 182, of Parl. Paper, No. 516 of 1855, still remain in force.

NAMES of PILOTS.—The Persons mentioned at p. 85 of Parl. Paper, No. 243 of 1861, are still acting.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTAL	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amo
		£. s. d.		£. s. d.		£. s. d.			£.
From Sea to Aberdeen Harbour and Dock.	2,460	1,090 14 6	132	40 17 -	161	69 16 -	- nil -	2,753	1,201

(2.)—OUTWARDS.

From Aberdeen Harbour and Dock to Sea.	2,596	354 11 6	70	54 1 -	23	13 9 -	- nil -	2,689	422

Note.—Total Receipts 1,623*l.* 9*s.* This amount was paid to the pilots, who collect the fees themselves.

19 April 1862. *Alexander Gould,* Captain Pilot of the Port of Aberde

PORT OF AYR.

ULATIONS and RATES of PILOTAGE issued by the Harbour Trustees.—The Regulations printed at pp. 95, 96, and the Rates at p. 96 of Parl. Paper, No. 5, Sess. 2 of 1857, are still in force.

NAMES of PILOTS.

William Stewart - - - -	aged 33	Thomas Cameron - - - -	aged 33
Arthur Redmond - - - -	51	Robert M'Creadie - - - -	40
James M'Callum - - - -	53		

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s. d.
e Bay to the Harbour -	1,096	249 19 11	27	19 18 10	6	3 18 4	-	nil -	1,129	273 17 1

(2.)—OUTWARDS.

e Harbour to the Bay -	1,136	259 3 1	27	19 8 10	6	3 18 4	-	nil -	1,169	282 10 3

A steam tug provided by the Harbour Trustees is generally used. The Rates of Pilotage are, however, the same, whether towed by steam or not.

ACCOUNT of MONIES received for Pilotage.

Dr.		£. s. d.	*Cr.*	£. s. d.
oss amount re-	Inward Pilotage -	273 17 1	By amount paid to Master Pilot and Pilots	244 15 6
ed for - -	Outward Pilotage -	282 10 3	By amount paid for or in respect of pilot boats, buoys, &c., including new pilot house	59 13 5
			By Balance - - - - - -	251 18 5
	£.	556 7 4	£.	556 7 4

Note.—The balance is expended in paying interest on debt, and in maintaining and improving the Harbour.

4 January 1862. *Thomas McCosh*, Secretary.

PORT OF DUNDEE.

REGULATIONS issued by the Joint Committee on Pilotage.—The Regulations printed at pp. 81-85 of Parl. Paper, No. 354 of 1856, are still in force.

NAMES of PILOTS.

See the List printed at page 87 of Parl. Paper, No. 243 of 1861. Those persons are still acting, with the exception o John Hogg, to whose place James Knight, aged 35, has been appointed.

RATES of PILOTAGE.

The Rates of Pilotage are the same as printed in Parl. Paper, No. 516 of 1855, pp. 187–189.

AMOUNT received for PILOTAGE of Vessels in 1861.

(1.)—INWARDS.

DISTANCES FOR WHICH PILOTED.	BRITISH VESSELS.			FOREIGN VESSELS.			TOTAL	
	COASTERS.	OVERSEA.		PRIVILEGED.	UNPRIVILEGED.			
		No.	Amount.		No.	Amount.	No.	Amou
			£. s. d.			£. s. d.		£. s
From Buoy of Tay to Dundee Docks, at 4 *s.* 0¾ *d.* per foot -	- nil -	51	123 15 –	- nil -	25	52 18 10	76	176 1
From Buoy of Tay to Dundee Docks, at 3 *s.* 6 *d.* per foot -	- -	137	292 13 5	- -	191	352 9 8	328	645
From Buoy of Tay to Dundee Docks, at 3 *s.* per foot - -	- -	24	39 18 9	- -	3	2 18 6	27	42 1
From Buoy of Tay to Carolina Roads, at 2 *s.* 9¾ *d.* per foot -	- -	5	8 – 5	- -	5	6 8 3	10	14
From Buoy of Tay to Carolina Roads, at 2 *s.* 6 *d.* per foot -	- -	4	3 18 11	- -	–	- -	4	3 1
From Buoy of Tay to Carolina Roads, at 2 *s.* 3 *d.* per foot -	- -	11	14 6 4	- -	39	40 2 2	50	54
From Buoy of Tay to Carolina Roads, at 2 *s.* per foot -	- -	8	6 11 –	- -	1	– 13 5	9	7
From Carolina Roads to Dundee Docks, at 1 *s.* 3 *d.* per foot	- -	5	3 12 10	- -	–	- -	5	3 1
From Carolina Roads to Dundee Docks, at 1 *s.* per foot -	- -	4	1 14 6	- -	–	- -	4	1 1
TOTAL - - -	- -	239	494 11 2	- -	264	455 10 10	513	950

(2.)—OUTWARDS.

From Dundee Docks to Buoy of Tay, at 4 *s.* 0¾ *d.* per foot -	- nil -	17	44 14 5	- nil -	30	57 18 2	47	102 1
From Dundee Docks to Buoy of Tay, at 3 *s.* 6 *d.* per foot -	- -	93	178 9 3	- -	104	178 16 9	197	357
From Dundee Docks to Buoy of Tay, at 3 *s.* per foot - -	- -	25	33 7 6	- -	27	29 18 3	52	63
From Ferry Roads to Buoy of Tay, at 2 *s.* 6 *d.* per foot -	- -	1	1 13 9	- -	–	- -	1	1 1
From Carolina Roads to Buoy of Tay, at 2 *s.* 3 *d.* per foot -	- -	3	4 – 3	- -	3	3 2 11	6	7
From Dundee Docks to Tay Port, at 2 *s.* per foot - -	- -	2	1 16 10	- -	10	6 9 –	12	8
From Dundee Docks to Ferry Roads, at 1 *s.* 3 *d.* per foot -	- -	2	1 4 8	- -	1	– 18 9	3	2
From Dundee Docks to Ferry Roads, at 1 *s.* per foot - -	- -	2	– 16 –	- -	–	- -	2	– 1
TOTAL - - -	- -	145	266 2 8	- -	175	277 3 10	320	543

ACCOUNT of the RECEIPT and EXPENDITURE of MONIES received for PILOTAGE.

REVENUE.	£.	s.	d.	EXPENDITURE.	£.	s
To amount received for Inward Pilotage -	950	2	–	The Expenditure for the year ending on 31st December 1861, consists as follows:		
To amount received for Outward Pilotage	543	6	6	By wages paid to Pilots - - - -	669	5
				By bonus paid to Pilots - - - -	293	9
Note.—This does not include the fees payable to the Pilot Master by the respective vessels, which, during the year, amounted to 71 *l.* 5 *s.* 6 *d.*				By sums paid to extra Pilots throughout the year, and for taking Pilots to and from vessels - - - - - - - -	40	10
				By Pilot Masters' commission - - -	58	18
				By salaries to Secretary and Treasurer -	35	–
				By accounts for provisions furnished to Pilots	221	3
				By general expenditure for tear and wear of cutter, coals, oil, &c. &c. - - - -	101	8
				By balance applied to reduction of the debt due on the establishment - - -	73	12
£.	1,493	8	6	£.	1,493	8

22 January 1862. *Jas. M'Ewen*, Secretary.

PORT OF GLASGOW.

s and RATES of PILOTAGE issued by the *Clyde* Pilot Board.—The Bye-Laws printed at pp. 88–90, and the Rates at p. 90 of Parl. Paper, No. 287 of 1860, are still in force.

f PILOTS.—The Persons mentioned at p. 88 of Parl. Paper, No. 243 of 1861, are still acting, with the addition of Alexander Miller, aged 34.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.				TOTALS.	
	COASTERS.				OVERSEA.									
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.
ock to Bowling	20	14 1 2	35	18 2 4	–	– – –	–	– – –	–	– – –	–	– – –	55	32 3 6
ock to Glasgow	59	20 – –	876	833 19 2	42	53 2 1	426	590 3 3	17	14 4 2	203	258 10 8	1,623	1,769 19 4
TOTAL - -	79	34 1 2	911	852 1 6	42	53 2 1	426	590 3 3	17	14 4 2	203	258 10 8	–	1,802 2 10

(2.)—OUTWARDS.

ow to Bowling	6	2 18 –	8	4 16 –	–	– – –	–	– – –	–	– – –	–	– – –	14	7 14 –
ow to Greenock	35	26 5 –	841	707 18 3	26	23 8 –	658	976 6 10	12	9 – –	184	230 3 5	1,756	1,973 1 6
TOTAL - -	41	29 3 –	849	712 14 3	26	23 8 –	658	976 6 10	12	9 – –	184	230 3 5	1,770	1,980 15 6

ACCOUNTS of the PILOT BOARD in respect of PILOTAGE.

As to the PILOTAGE earned and paid to Pilots.

	£. s. d.		£. s. d.
of pilotage earned from January to ber - - - - - - -	3,782 18 4	Amount paid to pilots - - - -	3,404 13 1
		Balance carried down - -	378 5 3
		£.	3,782 18 4

As to the REVENUE and EXPENDITURE of the PILOT BOARD.

REVENUE.		EXPENDITURE.	
	£. s. d.		£. s. d.
retained from pilots, as per account	378 5 3	Salaries - - - - - - -	182 8 3
ses issued to pilots - - -	121 16 –	General charges - - - - -	35 18 4
of fines levied from pilots - -	4 11 11	Allowances to pilots and families - -	124 6 –
- - - - - - -	85 16 5		
oney - - - - - -	5 – –		342 12 7
		Surplus Revenue - - - -	252 17 –
£.	595 9 7	£.	595 9 7

BALANCE SHEET.

Dec. 1861:	£.	s.	d.	£. s. d.	31 Dec. 1861:	£. s. d.
plus, as per account g 31st December 1860	2,165	6	2		By Clyde Trustees, sum lodged in their hands - - - - - - -	2,000 – –
for year ending 31st mber 1861, as above -	252	17	–		By James Alexander, collector for pilotage on vessels in harbour, unpaid at this date - - - - - -	96 1 8
				2,418 3 2	By cash in Clydesdale Bank - -	322 1 6
			£.	2,418 3 2	£.	2,418 3 2

February 1862.

A. Turner, Secretary.

PORT OF GREENOCK.

No Returns have been received from the Pilotage Authorities at this Port.

PORT OF IRVINE.

REGULATIONS issued by the Pilotage Committee.—The Regulations printed in Parl. Paper, No. 516 of 1855, pp. 199 are still in force.

NAMES of PILOTS.

Alexander Murray	aged 38
Hugh Young	68
Archibald Gilkeson	63

RATES of PILOTAGE.

The Rates printed at p. 290 of Parl. Paper, No. 243 of 1861, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS (COASTERS).		FOREIGN VESSELS.	TOTAL	
	No.	Amount.		No.	Am
		£. s. d.			£.
From outside of Harbour up to the Quay, about one mile.	51	2 12 3	- - nil - -	51	2

(2.)—OUTWARDS.

From outside of Bar, in and from Harbour to the outside of Bar outwards.	363	146 2 5½	- - nil - -	363	146

ACCOUNT of MONIES received for PILOTAGE.

Dr.	£. s. d.	*Cr.*	£.
To balance brought from last account - -	2 – 3	By amount paid for or in respect of pilot boats - - - - - - - -	1
To gross amount received for { Inward pilotage	2 12 3½	By amount to pilots and assistants - -	135
To gross amount received for { Outward pilotage	143 10 2½	Commissions - - - - - - -	3 1
		To balance - - - - -	8
£.	148 2 9	£.	148

19 March 1862.

Alexander C. M'Kinlay, Harbour Mas

PORT OF KIRKCALDY.

ons and Rates of Pilotage issued by the Harbour Commissioners.—The Regulations printed at pp. 201, 202, and the Rates at p. 202 of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.

James Walker - - - - aged 56 | John Walker - - - - - aged 31

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

ANCES which OTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
of Forth to	10	3 - -	4	1 5 -	25	14 10 -	17	12 - -	18	9 10 -	9	5 - -	nil -	83	45 5 -

(2.)—OUTWARDS.

aldy to Frith	5	1 - -	2	- 5 -	15	8 13 -	14	6 17 6	10	3 12 -	5	1 14 8	nil -	51	22 2 2

ts employed by vessels receive the dues for pilotage, and render no account of them. They receive no remuneration from the Commissioners.

anuary 1862. *James Russell*, Secretary.

TRINITY HOUSE OF LEITH.

LAWS issued by the Trinity House.—The Bye-Laws printed in Parl. Paper, No. 5, Sess. 2 of 1857, pp. 104–106, are still in force.

NAMES of PILOTS.

ld Blair, sen. - - aged 56
ld Blair, jun. - - - 39
Blair - - - - 29
r Bruce - - - - 53
mb - - - - - 53
Carnie - - - - 47
ler Henderson - - - 52
Linton - - - - 40
M'Kenzie - - - - 64
M'Quat - - - - 42
James Maxwell, jun. - - aged 46
James Morris - - - - 49
William Noble - - - - 51
George Sorlie - - - - 50
Hugh Smith - - - - 58
Andrew Stevenson - - - 40
Alexander Watson - - - 41
Thomas Wilson, sen. - - - 74
David Stevenson - - - - 40

Limits: From Red Head on the north, and St. Abb's Head on the South of Frith of Forth, up to Alloa.

TRINITY HOUSE OF LEITH—*continued.*

NAMES of PILOTS—*continued.*

John Dryburgh	aged 31	David Gardiner	aged 63
Thomas Paterson	48		
John Robertson	67	John Bell	26

Limits: From St. Abb's Head and Head to Alloa, *et vice versâ.*

Alexander Beaton	26	James Paterson Kin	44
Alexander Comb	54	James Paterson	51
Thomas Hume	67	Neil Sutherland	36
William Lawson	64	Peter Swanson	50
John Linton	68	William Morrison	32

Limits: From Red Head, in the Forth, and St. Abb's Head, to Carro *et vice versâ.*

Limits :—

John Finlay	aged 47	From Fifeness and St. Abb's Head, in Frith of Forth, to Alloa, *et vice versâ.*
James Beaton	49	From Inchkeith, in Frith of Forth, to Alloa, *et vice versâ.*
Hugh Campbell	61	
George Carlaw	40	
David Drysdale	45	
George Donaldson	39	From Inchkeith, in Frith of Forth, to Kincardine, *et vice versâ.*
Peter Fotheringham	44	From Inchkeith, in Frith of Forth, to Stirling, *et vice versâ.*
David Jamieson	45	
James Maxwell, sen.	70	
John Rintoul	42	
John Ainslie	61	From May Island to Stirling, including all safe harbours within these limits, *et vice ve*
John Martin	51	From the Red Head, on the north side, and St. Abb's Head on south side of Frith c to Stirling.
Edward Rodger	56	From Fifeness, May Island, and St. Abb's Head, to Grangemouth and Stirling, i harbours of Grangemouth, Alloa and Stirling.
Andrew Rae	26	From May Island to Alloa, including all safe harbours within these limits, *et vice versi*
John Hoggin	65	From Leith Roads to St. Abb's Head on the south side, and Red Head on north side of Forth, and Harbours.
John Allan	38	From the Roads of Dysart, in Frith of Forth, into the harbours of Dysart and K *et vice versâ.*
David Anderson	36	From Leith Roads to Shields Bar, and along the coast of Scotland, to Duncansbay He
John Anderson	61	In the Frith of Forth.
Thomas Bain	74	From Alloa, in Frith of Forth, to Stromness and St. Abb's Head.
Alexander Brodie	45	In and out of Ardrossan.
George Banks	58	From Stromness to Duncansbay Head, and Orkney Islands.
John Buick	61	From Arbroath round the north of Scotland to Mull of Galloway, and from Arbroath.
John Boddo	63	From Buoy of Tay to the Nore, and from Buoy of Tay to Mull of Galloway, *et vice ve*
Joseph Barlow	45	From Ferry-port-on-Craig to Perth, from Buoy of Tay and Grangemouth to Shields B
John Cook	47	In the Frith of Forth and River Tay.
Robert Comb	52	From St. Abb's Head to Carron Roads, and from Shields to Stornoway.
George W. Craig	35	From Ferry-port-on-Craig to the Nore, *et vice versâ.*
Thomas F. Colston	55	From Duncansbay Head to the Nore, *et vice versâ.*
Robert Dryburgh	36	From St. Abb's Head to Carron Roads.
William Chisholm	50	From St. Andrew's to Grangemouth.
James Graham	42	From the Red Head and St. Abb's Head to Alloa.
William Gardner	39	From Alloa to Fifeness and St. Abb's Head.
James Hay	41	From Ferry-port-on-Craig to Perth, from Buoy of Tay and Grangemouth, and from mouth to Shields Bar.
George Jamieson	43	From St. Abb's Head and Red Head to Alloa, *et vice versâ.*
Robert Kilpatrick	54	From Leith Roads to London, and also to Pentland Frith.
Robert Marr, jun.	57	From the Red Head on the north and St. Abb's Head on the south of Frith of F St. Margaret's Hope.
Boyd Meiklereid	46	From Leith Roads to Cape Wrath, and from Leith Roads to the Nore.
William Wood	61	From Ferry-port-on-Craig to Perth.

TRINITY HOUSE OF LEITH—*continued.*

NAMES of PILOTS—*continued.*

		Limits :—
Arthur	aged 28	From Red Head to Grangemouth and to Alloa.
'Intosh	40	From Ferry-port-on-Craig to Perth, *et vice versâ.*
icolson	62	In and out of Leven.
Parker	37	From St. Abb's Head on the south to Red Head on the north, thence to Grangemouth.
terson	43	In the Frith of Forth.
r Ross	55	From Tarbet Ness to Bonar Bridge, in and out the Moray Frith.
r S. Salter	39	From Leith Roads to the Nore, *et vice versâ.*
Raison	38	
. Hossack	36	
turrock	34	From Ferry-port-on-Craig to Perth.
rower	64	From Broughty Castle to Perth.
ell	58	
Vinish	42	From two miles outside of Cromarty to Dingwall.
son	55	From Fifeness to the Red Head, and St. Andrew's, and to Dundee Roads, and creeks and inlets included.
Vilson, jun.	55	From Alloa, in Frith of Forth, round the North of Scotland.
Wilson	43	From St. Abb's Head north to Red Head, and from Red Head, thence to Alloa.
omb	35	
. Wilson	44	From Leith to the Nore.
lloway	45	From Stirling to Inchkeith, *et vice versâ.*
. Robertson	38	From Leith Roads to Stromness, *et vice versâ.*
aterson	43	From May Island to Alloa, including all safe harbours within these limits, *et vice versâ.*
Wilson	45	In and out of Ardrossan.
Allan	55	From Alloa to St. Abb's Head, *et vice versâ.*
rrence	35	From Broughty Ferry to Perth, *et vice versâ.*
Gilmour	46	From Fifeness and Bass Rock to Grangemouth, *et vice versâ.*
as	54	From Dysart to St. Abb's Head, *et vice versâ.*
Ramsay	50	From Red Head on the north and St. Abb's Head on the south of Frith of Forth to Alloa.
ng	48	From St. Abb's Head on the south to Red Head on the north, thence to Alloa.
innie	64	From Wemyss Harbour to Roads, *et vice versâ.*
r Simpson	29	From Inchkeith to Alloa, *et vice versâ.*
Howling	28	From Leith to the Nore.
wards	36	From Perth to Tayport, *et vice versâ.*
dward, jun.	43	From St. Abb's Head and Red Head to Alloa, *et vice versâ.*

f the pilots, besides their Trinity House licenses, hold also harbour licenses under other pilotage authorities, such as the Commissioners for the Harbour and Docks of Leith. No assistant pilots or apprentices are recognised by the Trinity House.

RATES of PILOTAGE.—The Rates printed at p. 5, Sess. 2 of 1857, still remain in force.

Trinity House of Leith—*continued.*

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	*BRITISH VESSELS.				*FOREIGN VESSELS.				TOTALS.		REMAR
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.	
From Leith Roads to Carron Roads.	4	2 5 –	2	1 8 –	6	9 3 6	–	– – –	12	12 16 6	
From Island of May or Bass Rock to Leith Roads.	18	50 10 9	–	– – –	22	62 17 10	2	8 9 6	42	121 18 1	The pilo the distanc mentioned hend also diate distar
From St. Abb's Head to Carron Roads.	3	19 – –	–	– – –	–	– – –	1	7 7 –	4	26 7 –	
From St. Abb's Head to Leith Roads.	9	37 16 –	–	– – –	18	65 17 6	–	– – –	27	103 13 6	
Along the West Coast of Scotland	63	12 – –	–	– – –	–	– – –	–	– – –	63	12 – –	
Into Alloa - - - -	8	22 11 5	3	3 2 6	25	70 4 6	–	– – –	36	95 18 5	
Into Aberdour - - -	–	– – –	–	– – –	1	2 5 –	–	– – –	1	2 5 –	
Into Bo'ness - - - -	76	48 17 –	–	– – –	26	25 2 –	1	1 10 –	103	75 9 –	
Into Burntisland - - -	6	10 2 6	–	– – –	46	64 12 –	1	3 3 –	53	77 17 6	
Into Balmerino - - -	1	– 7 –	–	– – –	–	– – –	–	– – –	1	– 7 –	
Into Carron Roads - - -	6	6 16 –	–	– – –	4	2 17 6	–	– – –	10	9 13 6	
Into Charleston - - -	1	1 – –	3	2 – 6	27	38 7 –	–	– – –	31	41 7 6	
Into Clackmannan - - -	–	– – –	–	– – –	1	1 5 –	1	1 – –	2	2 5 –	
Into Dingwall - - -	37	43 5 10	–	– – –	–	– – –	–	– – –	37	43 5 10	
Into Dundee - - - -	1	– 6 –	–	– – –	–	– – –	–	– – –	1	– 6 –	
Into Dysart - - - -	–	– – –	–	– – –	2	4 4 –	–	– – –	2	4 4 –	
Into Eden - - - -	17	9 2 –	–	– – –	2	3 10 –	–	– – –	19	12 12 –	
Into Granton - - - -	1	– 10 –	–	– – –	–	– – –	–	– – –	1	– 10 –	No rates Trinity Ho
Into Grangemouth - - -	99	87 – –	13	7 11 6	100	216 2 6	12	19 16 6	224	330 10 6	
Into Inverkeithing - - -	–	– – –	–	– – –	1	– 15 –	–	– – –	1	– 15 –	
Into Leven - - - -	51	26 4 –	–	– – –	3	3 4 –	–	– – –	54	29 8 –	
Into Kincardine - - -	–	– – –	1	2 – –	8	12 13 –	–	– – –	9	14 13 –	
Into Perth - - - -	10	12 6 –	10	13 12 8	5	4 11 –	9	13 19 –	34	44 8 8	
Into Pittenweem - - -	17	9 5 3	–	– – –	1	– 8 –	–	– – –	18	9 13 3	
Into Queensferry - - -	1	1 – –	–	– – –	1	1 – –	–	– – –	2	2 – –	
Into Newburgh - - -	15	10 – 6	1	1 – –	8	5 18 –	1	2 4 –	25	19 2 6	
Into St. David's - - -	6	5 10 –	1	1 1 –	5	7 18 –	2	3 – 6	14	17 9 6	
Into St. Andrew's - - -	28	13 14 –	3	3 11 –	5	9 9 –	1	1 16 –	37	28 10 –	
Into Tayport - - - -	4	– 12 –	1	1 4 –	5	6 2 –	–	– – –	10	7 18 –	
Into Wemys - - - -	81	40 10 10	1	– 9 –	16	9 2 –	–	– – –	98	50 1 10	
From Sea or Tarbet Ness to Tain, Portmahomack, Bonar Bridge, and the Dornock Frith.	150	107 2 –	–	– – –	–	– – –	–	– – –	150	107 2 –	
TOTAL - - -	713	577 14 1	39	37 – 2	338	627 8 4	31	62 5 6	1,121	1,304 8 1	

* No distinction is made between the different classes of British and Foreign vessels, either in the rates of pilotage or in the returns of the pilo

TRINITY HOUSE OF LEITH—*continued.*

(2.)—OUTWARDS.

TANCES for which LOTED.	*BRITISH VESSELS. Not Towed by Steam. No.	Amount. £. s. d.	Towed by Steam. No.	Amount. £. s. d.	*FOREIGN VESSELS. Not Towed by Steam. No.	Amount. £. s. d.	Towed by Steam. No.	Amount. £. s. d.	TOTALS. No.	Amount. £. s. d.	REMARKS.
ron Roads to Leith	5	4 7 –	–	– – –	3	4 10 –	–	– – –	8	8 17 –	
Roads to Island of	5	18 13 5	–	– – –	2	7 7 –	–	– – –	7	26 5 5	
Roads to Downs -	1	14 – –	–	– – –	4	55 – –	3	25 – –	8	94 – –	The pilotages for the distances herein mentioned comprehend also intermediate distances.
Roads to Thurso Bay	3	40 – –	–	– – –	1	12 – –	–	– – –	4	52 – –	
Roads to Plymouth	1	36 – –	–	– – –	–	– – –	–	– – –	1	36 – –	
Docks to London -	1	15 – –	–	– – –	1	10 – –	–	– – –	2	25 – –	
Docks to Falmouth	–	– – –	–	– – –	1	10 – –	–	– – –	1	10 – –	
ba - - - -	29	33 5 –	3	6 – –	47	48 6 –	2	2 11 –	81	90 2 –	
truther - - -	27	18 5 5	–	– – –	–	– – –	–	– – –	27	18 5 5	
ness - - -	43	27 19 6	–	– – –	2	2 – 6	–	– – –	45	30 – –	
ntisland - - -	14	9 11 6	–	– – –	30	20 13 6	–	– – –	44	30 5 –	
rleston - - -	5	3 12 –	–	– – –	39	34 6 5	–	– – –	44	37 18 5	
ckmannan - -	–	– – –	–	– – –	14	10 10 6	1	– 14 –	15	11 4 6	
ndee - - -	7	5 5 –	2	1 12 –	–	– – –	–	– – –	9	6 17 –	
art - - -	2	1 2 6	–	– – –	73	36 18 9	1	– 15 –	76	38 16 3	
les - - -	1	– 15 8	–	– – –	–	– – –	–	– – –	1	– 15 8	
th of Forth - -	5	4 – –	–	– – –	–	– – –	–	– – –	5	4 – –	
ngemouth - -	78	81 16 –	1	3 – –	52	87 1 3	1	1 1 –	132	172 18 3	
hkeith - - -	3	2 3 6	1	2 – –	1	2 – –	–	– – –	5	6 3 6	No rates fixed by Trinity House.
erkeithing - -	4	1 19 –	–	– – –	38	18 5 –	–	– – –	42	20 4 –	
th Roads - -	5	17 13 6	–	– – –	–	– – –	–	– – –	5	17 13 6	
en - - - -	51	26 4 –	–	– – –	4	4 7 –	–	– – –	55	30 11 –	
wburgh - - -	13	9 5 –	–	– – –	6	3 19 –	–	– – –	19	13 4 –	
Margaret's Hope -	–	– – –	–	– – –	1	– 16 –	–	– – –	1	– 16 –	
tenweem - -	17	9 5 3	–	– – –	2	1 4 –	–	– – –	19	10 9 3	
th - - - -	7	5 15 6	3	2 14 –	5	8 5 –	3	3 6 –	18	20 – 6	
David's - - -	17	12 – –	–	– – –	36	18 19 10	–	– – –	53	30 19 10	
omness - - -	2	3 11 –	–	– – –	2	1 7 6	–	– – –	4	4 18 6	
myss - - -	81	40 10 10	–	– – –	15	7 – –	–	– – –	96	47 10 10	
a to Inchkeith, 35 trips	1	43 15 –	–	– – –	–	– – –	–	– – –	1	43 15 –	
ar Bridge and the Dorrith to Sea or Tarbet	20	10 – –	–	– – –	–	– – –	–	– – –	20	10 – –	
TOTAL - - -	448	495 15 7	10	15 6 –	379	404 17 3	11	33 7 –	848	949 5 10	

istinction is made between the different classes of British and Foreign vessels, either in the rates of pilotage or in the returns of the pilots.

–With the exception of vessels bound to and from Leith, Kirkcaldy, and such other harbours as are regulated by special Acts of Parliament and eir own pilots, no change of pilots is compulsory within the Trinity House limits. No Return of these harbour pilotages can be given by the louse, as the harbour pilots are not under their authority, but under that of the several harbour authorities.

ACCOUNT of the RECEIPT and EXPENDITURE of MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s. d.
ount received from pilots as subscrip- for acting as pilots - - - - -	105 – –	By amount paid for pensions or superannuations - - - - - - -	105 – –

March 1862.

Thomas Robertson, Secretary.

HARBOUR AND DOCKS OF LEITH.

REGULATIONS and RATES of PILOTAGE issued by the Harbour Commissioners.

See p. 96 of Parl. Paper, No. 243 of 1861. The Regulations and Rates there referred to are still in force.

NAMES of PILOTS.—The Persons mentioned at pp. 96, 97 of Parl. Paper, No. 243 of 1861, are still acting, with the addition of John Duff Mackie.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.—The Amount received was 1,130 *l.* 5 *s.* 3 *d.* No details can be given.

(2.)—OUTWARDS.—The pilotage outwards is paid direct to the pilots; and the amount received by them is not known.

ACCOUNT of the RECEIPT and EXPENDITURE of MONIES received in respect of PILOTAGE.

Dr.	£.	*s.*	*d.*	*Cr.*	£.	*s.*
To amount of fees received from applicants for licenses and certificates - - -	1	1	–	By amount paid to pilots - - - -	1,045	8
To amount received for fines and forfeitures	2	–	3	By amount paid to Pilots' Widows' Fund -	28	–
To gross amount received for inward pilotage	1,130	5	3	By amount applied to cover expense of collection - - - - - - - -	56	15
				By amount applied to cover expense connected with licenses - - - -	3	1
£.	1,133	6	6	£.	1,133	6

Reference is made to explanatory note at foot of p. 211 of Parl. Paper, No. 516 of 1855.

30 January 1862. *John Phin*, Clerk

PORT OF LOSSIEMOUTH.

REGULATIONS issued by the Harbour Company.—The Regulations printed at pp. 212, 213 of Parl. Paper, No. 516 of 1 are still in force.

NAMES of PILOTS.—The Persons mentioned at p. 97 of Parl. Paper, No. 243 of 1861, are still acting.

RATES of PILOTAGE.—3 *d.* per ton in and out.

PORT OF LOSSIEMOUTH—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

BRITISH VESSELS.			FOREIGN VESSELS.	TOTALS.	
COASTERS.	OVERSEA.				
Amount.	No.	Amount.		No.	Amount.
£. s. d.		£. s. d.			£. s. d.
273 - -	15	17 12 6	- - - - Nil - - -	333	290 12 6

(2.)—OUTWARDS.

273 - -	15	17 12 6	- - - - - - - - -	333	290 12 6

January 1862. *Fife Duff Robertson*, Secretary.

PORT OF MACDUFF.

BYE-LAWS.—Nil.

NAMES of PILOTS.

aterson - - - aged 40	Andrew Paterson - - aged 29	James Wilson - - - aged 28
Vest - - - - 32	James Lyall - - - - 54	Alexander Lyall - - - 54
Vest - - - - 39	Andrew West - - - - 34	James West - - - - 52
est - - - - 35	William West - - - - 55	James Lyall - - - - 41
r Watt - - - - 34	George Lyall - - - - 52	Alexander Paterson - - - 40
Wilson - - - - 32	James Wilson - - - - 39	William Lyall - - - - 33
Vest - - - - 76	James Lyall - - - - 24	Innes West - - - - 42

These men are experienced fishermen, who act as pilots as chance occurs.

RATES of PILOTAGE.

	s.	d.
Inwards for every vessel, per registered ton - - - - - - - - - - - -	–	1½
Outwards for every vessel, per registered ton - - - - - - - - - - - -	–	1½
For each tide within the harbour, each man - - - - - - - - - - -	1	–
For laying out kedge and warp to assist vessels to sea - - - - - - - - -	5	–
For each man employed as a hauler on warp - - - - - - - - - - -	1	–

AMOUNT received for PILOTAGE of VESSELS in 1861.

INWARDS.			OUTWARDS.		
	Number of Vessels.	Amount.		Number of Vessels.	Amount.
		£. s. d.			£. s. d.
- - - - -	41		Oversea - - - - -	41	
- - - - -	165		Coasters - - - - -	165	
	206	72 – 10½		206	72 – 10½
oats - - - -	- -	17 – –	Extra boats - - - -	- -	15 – –
ands - - - -	- -	10 – –	Extra hands - - - -	- -	24 – –
TOTAL - - -		99 – 10½	TOTAL - - -		111 – 10½

January 1862. *James Farquharson.*

PORT OF PETERHEAD.

Regulations issued by the Trustees of the Harbours of *Peterhead*.—The Regulations printed in Parl. Paper, No. 516 of 1855, pp. 216–218, are still in force.

NAMES of PILOTS.

Matthew Nicol	aged 50	Robert Slessor	aged 46
Alexander Robertson (1)	71	David Buchan	49
Alexander Leask (1)	53	James Don	63
Alexander Leask (2)	39	William Thain	56
James Herd	38	James Cordiner	33
James Thain	31	George Ritchie	29
Alexander Souttar	66	Alexander Robertson (2)	45
John M'Lean	40	Andrew Milne	50
Robert Sellar	56	William Watt	31
Alexander Strachan (1)	38	Andrew Watt	54
William Mackie	45	John Coul	43
Alexander Watt	37	Robert Strachan	25
John Robertson	33	Alexander Strachan (2)	35
Alexander Alexander	39	Charles Alexander	39
William Alexander	45	John Geddes	32
Robert Ritchie	32	Robert Taylor	27
George Strachan	24	George Cordiner	21
James Duthie	—	Alexander Strachan (3)	22
David Stephen	63	George Strachan	35
William Taylor	62	Alexander Buchan	30
John Groat	37	Andrew Buchan	29
Robert Milne	60	John Buchan	26

Limits: Into and out of the Harbo of Peterhead.

Rates of Pilotage.—The Rates printed at p. 113 of Parl. Paper, No. 5, Sess. 2 of 1857, still remain in force.

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

DISTANCES FOR WHICH PILOTED.	*BRITISH VESSELS.		FOREIGN VESSELS.		TOTALS.	
	No.	Amount.	No.	Amount.	No.	Amount.
		£. s. d.		£. s. d.		£. s.
Into the Harbours of Peterhead	659	195 18 7	41	14 3 4	700	210 1 1

(2.)—OUTWARDS.

Out of the Harbours of Peterhead	659	195 18 7	41	14 3 4	700	210 1 1

*This includes oversea as well as coasting vessels.

Note.—One uniform rate is charged on all vessels, whether coasters, oversea, or Foreign. One-half is charged on coming into, and the other half leaving the Harbours.

ACCOUNT of the Receipt and Expenditure of Monies received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
To amount of fees received from applicants for licenses and certificates	2 14 —	By amount paid to officers	2 14
To gross amount received for { inward pilotage	210 1 11	By amount paid for rent	6 —
{ outward pilotage	210 1 11	By amount paid for salary of captain pilot	90 —
To balance provided from the revenue derived by the Trustees of the Harbours of Peterhead	61 — —	By amount paid to pilots	385 3 1
£.	483 17 10	£.	483 17 1

31 January 1862.

William Boyd, Clerk.

PORT OF WICK.

REGULATIONS issued by the British Fishery Society.

The Regulations printed in Parl. Paper, No. 516 of 1855, p. 220, still remain in force.

NAMES of PILOTS.

The Persons mentioned at p. 101 of Parl. Paper, No. 287 of 1860, are still acting.

RATES of PILOTAGE.

	s.	d.
For every vessel of 20 tons entering and leaving the Harbour, per ton	–	4
For each tide's work within the Harbour	7	6
For laying out kedge or warp to assist vessels	5	–

AMOUNT received for PILOTAGE of VESSELS in 1861.

ISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s. d.
a line drawn from h Head to South d of Wick Bay -	162	80 7 6	230	196 1 6	95	71 9 9	- - Nil - -		487	347 18 9

ACCOUNT of the Receipt and Expenditure of MONIES received for PILOTAGE.

Dr.	£. s. d.	*Cr.*	£. s. d.
ss amount received { inward pilotage -	173 19 4	By amount paid to officers - - -	3 18 7
- - - - { outward pilotage -	173 19 5	By amount paid for or in respect of pilot boats, buoys, &c. - - - - -	4 18 –
ount received from other sources - -	45 4 3	Paid to the pilots weekly by the pilot master - - - - - -	384 6 5
£.	393 3 –	£.	393 3 –

0 January 1862. *William Crow*, Clerk.

IRELAND.

PORT OF BALLINA.

BYE-LAWS.—Nil.

NAMES of PILOTS.—The persons mentioned at p. 101, of Parl. Paper, No. 243 of 1861 are still acting, with the additi James M'Keow and Thomas Cain to the number of Sea Pilots inwards.

RATES of PILOTAGE.

Foreign going vessels - - - 3*s.*
Coasting vessels - - - - 2*s.* } per foot on the draught of water.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.						FOREIGN VESSELS.		TOTALS	
	COASTERS.				OVERSEA.		Towed by Steam.			
	Not Towed by Steam.		Towed by Steam.							
	No.	Amount.	No.	Amount.			No.	Amount.	No.	Amou
		£. s. d.		£. s. d.				£. s. d.		£. s.
From Killala Bay to Quay - - -	66	44 6 -	42	21 5 -	- - Nil - -		14	28 11 -	122	94 2

(2.)—OUTWARDS.

From Quay to Killala Bay - - -	83	32 6 -	25	14 - -	- - Nil - -		14	13 4 -	122	59 10

ACCOUNT of MONIES received for Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
To gross amount received for { Inward pilotage	94 2 -	By amount paid to pilots - - - -	153 12
Outward pilotage	59 10 -		
£.	153 12 -	£.	153 12

16 June 1862.

John M'Culloch, Secretary.

PORT OF BELFAST.

REGULATIONS issued by the Harbour Commissioners.—The Regulations printed at pp. 100-103 of Parl. Paper, No. 354 of 1856, still remain in force.

NAMES of PILOTS.

the List of Pilots printed at p. 103 of Parl. Paper, No. 287 of 1860. William Hutchinson, aged 25, has been appointed in the room of James Hill, since deceased.

APPRENTICES.

Hugh Hutchinson - - - - -	aged 20
Thomas Shaw - - - - - - -	23
Edward Minaws - - - - - - -	16

RATES of PILOTAGE.—The Rates printed at pp. 103 and 104 of Parl. Paper, No. 354 of 1856, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

NCES, which TED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
oads to - -	1,864	752 14 –	2,040	816 11 2	23	22 7 6	96	91 7 7	20	19 17 –	108	108 4 5	nil	4,151	1,811 1 8

(2.)—OUTWARDS.

ways to - -	472	195 11 –	550	266 4 1	3	2 2 –	20	19 8 –	11	10 – 6	12	9 14 6	nil	1,078	503 – 1

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s. d.
ount of fees received from applicants censes and certificates - - - -	2 2 –	By amount paid for or in respect of pilot boats, &c., including wages of masters, mates, and boatmen - - - -	836 6 11
mount received for { Inward pilotage -	1,811 1 8		
mount received for { Outward pilotage	503 – 1		
ount received from other sources, ing 20 per cent. of their wages con- ted by pilots - - - - - -	471 1 1	By amount paid for pensions or superannuations - - - - - -	25 – –
ance - - - - - - - -	388 3 10	By pilots' wages - - - - -	2,314 1 9
£.	3,175 8 8	£.	3,175 8 8

February 1862.

William Thompson, Secretary.

PORT OF COLERAINE.

Bye-Laws issued by the Portrush Harbour Company.—The Bye-Laws are the same as printed in Parl. Paper, No. 516 of 1
pp. 230, 231.

Names of Pilots.—Rates of Pilotage.—*See* Parl. Paper, No. 516 of 1855, p. 232. No alteration has been made.

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
No.	Amount.	No.	Amount.	No.	Amount.			No.	Amoun
	£. s. d.		£. s. d.		£. s. d.				£. s.
442	213 5 4	5	10 15 –	2	2 15 8	- - Nil - -		449	226 16

(2.)—OUTWARDS.

442	106 12 8	5	5 7 6	2	1 7 10	- - Nil - -	449	113 8

24 June 1862. *Gwen & Co.*, Agents

PORT OF CORK.

Bye-Laws and Rates of Pilotage issued by the Harbour Commissioners.—The Bye-Laws and Rates printed at p. 1
Parl. Paper, No. 243 of 1861, are still in force.

NAMES of BRANCH PILOTS.

At Queenstown.		Daniel Allen - - -	aged 52	Martin Webb - - -	ag
John Whelan - - -	aged 56	John Hanigan - - -	47	Michael Lamb - - -	-
John Murphy - - - -	49	James Nash - - - -	44	Edward Sweeny - - -	-
Patrick Murphy - - - -	37	Michael Connor - - -	48	William Barry - - -	-
Richard Cotter - - -	35	Patrick Burke - - -	50	Patrick Saunders - - -	-
Maurice Crotty - - - -	36	John Cotter - - - -	51	Thomas Saunders - - -	-
Edward Dunn - - - -	34	Peter Walsh - - - -	37	John Smith - - - -	-
John Lynch - - - -	35	Edward Cotter, jun. - -	33	Peter Ahern - - - -	-
Thomas Ahern - - -	55	John Skerry - - - -	39	James Kirby - - - -	-
John Olden - - - -	56	John Lynch - - - -	39	Thomas Harris - - -	-
Hugh White - - - -	53	John Barry - - - -	37	John Cotter - - - -	-
Edward Cotter - - -	47	Thomas Barry - - -	26	Michael Geary - - -	-
James Bransfield - - -	47	Joseph Butt - - - -	60	William Dunn - - -	-
William Hartnett - - -	50	John Walsh - - - -	50	Thomas Sweeny - - -	-
James Hartnett - - -	31	John Halloran - - -	40	Thomas Downey - - -	-

PORT OF CORK—*continued.*

NAMES of BRANCH PILOTS—*continued.*

Queenstown—continued.

Smith	aged 48
unders	30
Carthy	44
rgan	40
Neill	45
anagh	61
ler	67
utler	69
orman	68
ry	34
Whelan	55
nders	29
Cotter	37

At Ballinacurra.

eary	aged 52
ningham	50

At Ballycotton.

rdan	aged 62
llivan	43

At Poor Head.

Dunn	aged 50
Dunn	31

At Cape Clear.

Daniel Cadogan	aged 25
Michael Cadogan	35

At Gally Head.

John Lombard	aged 50

At Kinsale.

Michael Nugent	aged 41
John Hurley	36
Edward M'Carthy	64
John Fleming	51
Daniel Brien	53
Robert Nugent	31
Timothy Hayes	41
Bartholomew Hurley	52
John Leary	73
Patrick M'Carthy	61
John Drinan	45

At Crookhaven.

Thomas Downey	aged 51
Thomas Ellis	36
Jeremiah Mahoney	37
Denis Mahoney	aged 33
Denis Mahoney	67
George Ellis	71
John Mahoney	46
Daniel Mahoney	47
Andrew Beazly	35

Branched Captains of Steam Ships.

William L. Tooker	aged 53
Stephen S. Mowle	58
Edward Byrne	46
Robert Staveley	42
Henry C. Raynes	29
Stephen Bertridge	36
James Doran	44
James Poole	41
Francis John Croft	25
John M'Donnell	35
Richard Holland	34
Charles John Fisher	35
Thomas Perry	40

TOTAL - - - 86 Pilots, exclusive of Captains of Steam Ships.

AMOUNT received for PILOTAGE.

ommissioners have no means of ascertaining what amount has been levied. The money does not pass through their hands.

ebruary 1862. *James F. Sugrue*, Secretary.

PORT OF DROGHEDA.

BYE-LAWS issued by the Harbour Commissioners.—*See* pp. 236, 237 of Parl. Paper, No. 516 of 1855.

NAMES of PILOTS.

Boylan	aged 30	Edward Sheridan	aged 51	James Rourke	aged 51			
ylan	65	John Owens	59	Thomas Owens	39			
Owens	57	Patrick Owens	57	John Owens	34			
tzpatrick	69	Thomas Boylan	35	John Owens	32			
eggs	62	Patrick Boylan	34	John Boylan	35	*First Class:* To pilot all vessels within the Port and Harbour.		
ynolds	58	Henry Garney	55	Richard Owens	38			
Owens	45	Thomas Owens	53	Nicholas Boylan	26			
wens	49	Thomas Boylan	42	John Freeman	33			
mew M'Guirk	47	Patrick Owens	51	James Freeman	27			
Owens	40	Patrick Owens	37	James Rourke	35			
M'Guirk	42	John Garney	41	James Smith	57			
Smith	aged 42	Michael Smith	aged 69	John Owens	aged 29			
Owens	66	John Owens	69	Felix Reynolds	27			
Boylan	35	Thomas Boylan	49	Robert Young	32	*Second Class:* To pilot vessels not exceeding 80 tons register within the Port and Harbour.		
Owens	57	Thomas Owens	28	Patrick Sheridan	49			
King	62	John M'Guirk	28	John Sheridan	26			
ith	36	Peter Owens	48	John King	30			
ing	39	Mathew Owens	53	Peter Boylan	22			
mith	42	Richard M'Guirk	26	Nicholas Owens	21			

RATES of PILOTAGE.—The Rates printed at p. 238 of Parl. Paper, No. 516 of 1855, are still in force.

PORT OF DROGHEDA—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.					FOREIGN VESSELS.					TOTAL	
	COASTERS.				OVERSEA.	PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.			Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.		No.	Amount.	No.	Amount.		No.	Am
		£. s. d.		£. s. d.			£. s. d.		£. s. d.			£.
From the Bay to the Quay of Drogheda - - -	278	187 13 -	307	155 8 4	- nil -	4	7 1 9	5	7 16 11	nil	594	358

(2.)—OUTWARDS.

From the Quay of Drogheda to the Bay - - -	399	269 6 6	186	94 3 3	- nil -	4	5 - 3	5	8 - -	nil	594	376

The above amounts paid to pilots, less 2½ per cent. commission for collecting.

20 February 1862. *John M'Namara*, Secretary

PORT OF DUBLIN.

BYE-LAWS with respect to PILOTS, PILOT-BOATS, and PILOTAGE.

EVERY master shall maintain due subordination, sobriety, and good order amongst the crew of his boat, both at sea a port, and shall, whilst in turn for boarding vessels, always use his utmost exertions to approach and board vessels req pilots; and every pilot or other person serving on board, or belonging to the boats, shall at all times cheerfully submit t execute all the lawful commands of the master or person in charge.

The masters shall on no occasion leave the boats when at sea, except in cases of emergency.

They shall keep exact journals of the proceedings of every cruize, which shall contain, in particular, accounts of all v boarded or piloted inwards, and the time and place of boarding them, and shall enter in them, every two hours, the posit their boats.

All pilots shall repair to their respective boats and proceed in them to their stations whenever and as often as th required by the masters; and no pilot while on service shall under any pretence whatever leave his boat save on duty.

Every pilot shall, whenever he is required, assist, as far as he is able, in performing all necessary repairs to the bo rigging, sails, and materials; and in case of refusal or neglect, the master may employ another person in his stead, the e to be deducted from his share of the earnings of the said boat, and the subject to be immediately reported to the pilot ma

Every pilot shall use his utmost care and diligence to conduct the ship and vessel under his charge without dam doing injury to others, and shall behave himself with strict sobriety and with due respect towards the owners, master officers thereof. He shall order the ensign to be hoisted on entering the port, and shall not leave his vessel until she is anchored, moored, or in dock.

He shall duly keep the lead going when in charge of any ship or vessel of large draught, while under weigh, and shall to the pilot master all accidents which may have happened to such vessel while under his direction, within 24 hours af discharge; and no pilot shall lay any vessel aground without an order from the owner or master.

He shall always have with him, when on duty, a good watch, a tide table, a copy of the Pilot Bye-laws and Regul and his numbered flag. On taking charge of a vessel, if required, he shall exhibit his license to the officer in command to present his note, and in the presence of the master or commander take the bearings and distance of the nearest head l prevent disputes as to where the vessel was boarded, under a penalty of 2 *l.*

The master is to fill up the pilot note with the true draught of water of his vessel, the position by bearing and dist nearest head land or light ship when boarded, and where left when outer bound, and is enjoined not to pay any of the p money, except at the Custom-house or to the pilot master at Kingstown; and every pilot shall in all cases examine and himself of the accuracy of the master's certificate, and if he shall be privy to or shall consent to a false certificate by the in regard to the draught of water or otherwise, he shall be liable to the forfeiture of his license and all claims to whatever p may be due to him.

The pilot, while in charge of a vessel, is to keep his flag hoisted, bearing his number thereon; he is on no account the helm, his duty being to give directions and to be in a position to look out all round, and before berthing a ship n especially careful that proper soundings have been taken to insure the vessel grounding on an even keel.

All pilots are to remain on board 12 hours after coming into port, should they be so required by the master or ow the purpose of shifting berth.

Pilots must obey the directions of the harbour or dock masters as to the docking or berthing of ships under their ch

The pilot of a vessel which may have received damage while in his charge, shall not be allowed to act again until an i shall have been instituted, to ascertain if the damage had been occasioned either by his incompetency or neglect.

Any pilot found in a state of intoxication, or getting intoxicated while on duty, shall, besides forfeiting all cl remuneration for his services, be liable to be deprived of his license. Pilots shall take care that all vessels sailing und

PORT OF DUBLIN—*continued.*

in the river, and beating to windward, and meeting on opposite tacks, shall be governed by the usual rule, namely, by on the starboard tack keeping to the wind, and vessels on the port tack bearing away, so as to pass easily astern of each nder a penalty not exceeding 5 *l.* for each offence. Steam vessels to pass each other always on the port side, under a nalty, and never to cross the bows of sailing vessels.

l pilot boats, whilst upon their stations, shall, during daylight, and as a signal, offering the services of a pilot, keep tly flying at the mast-head a red and white flag of large dimensions, the upper horizontal half of which shall be white lower half red, such flag to be carefully kept clean; and during the night to exhibit lights in accordance with the lty Regulations for the pilot service. In case of outward-bound vessels, the pilot shall repair on board in sufficient time eaving the dock or port, to ascertain if the vessel he is about to take charge of is ready for sea.

asters of pilot boats and pilots in charge of vessels shall, whether under weigh or at anchor, exhibit between sunset and the lights required by the Admiralty Regulations.

l instances of neglect of duty shall be brought before the Board; and no master pilot shall compromise any offence of

l complaints of offences against the Act of Parliament or the foregoing Bye-Laws, or any of them, with respect to pilots, ats, and pilotage, shall be made in writing, signed by the party aggrieved, and delivered to the secretary of the Board, at his office as soon as practicable; and such officer shall summon the party complained of, the party aggrieved, and all ersons as it may be desirable to examine, to attend the meeting of the Board, which shall be first held next after the ion of 48 hours from the time of the receipt by him of such complaint.

e master of a pilot boat who shall carry to sea, or be in any way aiding or assisting in putting on board any ship or for the purpose of piloting or conducting a ship, any unlicensed person, or any person whose license as a pilot has been ded or withdrawn, shall be liable to a penalty of 5 *l.*

Examination of Candidates for Sub-Pilots and Pilot Licenses.

andidates for sub-pilots will be required to prove to the satisfaction of the Board, that they are able to read and write ly, and that they have a competent knowledge of arithmetic, before they can be considered eligible for the pilot service.

andidates of not less than 16 years of age, having served three years at sea, partly in square-rigged vessels, shall (if ed by the Board) after one month's probation, be appointed for four years to a pilot boat, and be eligible for examination hird class license, at the expiration of that period.

o person having served in a Dublin pilot boat according to the provisions of the preceding Bye-Laws, shall be licensed as a pilot until he shall also have passed a creditable examination on the following subjects.

le must be able to give a correct and seaman-like description of the harbours, docks, and piers of Dublin, Kingstown, &c.

ist know the course and distance between any two places within the limits prescribed by the Board, the rise and set of the he depth and character of the soundings, the best anchorage, and where to stop a tide, the sand banks, rocks, shoals, and langers, the landmarks, buoys, perches, and lights. He must understand the complete management of a vessel to bring anchor, to moor, unmoor, and get her under way; and how to handle a vessel under any circumstances.

le must further produce certificates of service at sea, and from the master pilot of his boat for diligence, sobriety, and conduct for four years; and no pilot shall receive a full license without the production of a satisfactory certificate from isters, unless there shall appear to the Board good reason for deviating from this regulation.

econd and third class pilots are limited (except in cases of necessity) to conduct vessels of, but not exceeding, the under-ned registered tonnage and draught of water, viz.:—

Pilots, 2d Class	500 tons	16 feet.
„ 3d Class	250 „	12 „

ny vessel exceeding the given tonnage and draught which may from necessity take on board a pilot of a class not ized to conduct her, shall, if possible, exchange him for a duly authorized pilot out of any boat she may meet.

he masters and crews of any boat convicted of piloting any ship or vessel out of her regular turn, shall forfeit every tage gained thereby to the master and crew of the boat which may be declared by the pilot master or Board to be entitled o. The earnings of each pilot boat, including all compensations and rewards for assisting vessels in distress, shall be d amongst the owners and crew in the following proportions, viz.:—

Boat, one-fifth of all earnings, the remainder to be divided into shares as follows:—

Masters	1½ share.
Pilots, 1st Class	1½ „
„ 2d Class	1¼ „
„ 3d Class	1 „
Sub-Pilots	¾ „

But the Board have power to alter such apportionments from time to time as they shall judge most conducive to the st of the service.

For every license the sum of one guinea shall be paid; and on the renewal of any license in place of one lost or injured, ne of three guineas shall be levied, subject to be reduced by the Board if they think fit.

BYE-LAWS made by the CORPORATION for the Regulation of Masters and Mates of Ships who have received Pilotage Certificates.

1. No person to whom such certificate shall be granted shall add to, or in any way alter such certificate, or make or alter endorsement thereon, nor shall at any time lend such certificate.

2. Every person to whom such certificate shall be granted, who shall observe any alteration in any of the sands or channels, at any buoys or beacons of the Board have been driven away or out of place, shall forthwith deliver or send a correct ment to the pilot master or secretary of the Board.

3. Every person to whom such certificate shall be granted shall from time to time conform himself strictly to all directions h shall be given him by any of the harbour masters so long as such ship or vessel shall be lying within the limits of the ority of such harbour master.

4. Every person to whom such certificate shall be granted, shall, when in charge of any ship or vessel for which such ficate may have been granted, exhibit from the mast head a distinguishing flag of the usual dimensions and of two colours e upper horizontal half red, and the lower horizontal half white—in order to show that such ship or vessel has on board a er or mate qualified to act as pilot thereof.

5. Every person to whom such a certificate shall be granted shall attend the meetings of the Board, or of their pilotage nittee, upon being required so to do by a notice in writing under the hand of the secretary of the Board, to answer any plaint or charge which may be made against him.

Port of Dublin—*continued.*

Any person holding such certificate who shall offend against or contravene any of the last preceding Bye-laws, shall, for first offence, forfeit and pay the sum of 20 *l.*, subject to reduction by the Board or Justices by whom the penalty is inflicted; a for any subsequent offence his certificate shall be annulled or suspended at the discretion of the Board.

Each master or mate who has or may hereafter receive a license under the Merchant Shipping Act, shall pay a sum of for same, and 1 *l.* on each renewal thereof.

Cruising Ground, from Arklow Light Ship to Rockabill.

All vessels to pay outside pilotage when boarded to seaward of the lines drawn from Bray Head to the buoy on the so end of the Kish, and thence to Kish Light ship, outside the Kish Bank, and on to the Nose of Lambay. Inside pilotage fr all parts within the above limits.

Bray Head bears from South Buoy of Kish Bank, W.N.W. ¼ W. by compass, distant six miles, and Nose of Lamb from Kish Light ship, N. by E. ½ E., distant 11 miles.

Schedule of Rates of Pilotage of the Port of *Dublin*, 40 Geo. 3, c. 47.

	£.	s.	d.
For pilotage of all foreign ships or vessels coming into the Harbour of Dublin, over the Bar from without the Banks, the sum of six shillings per foot for every foot of water such ship or vessel shall then draw, and so in proportion for half a foot of water in all cases, but no allowance whatever shall be made for odd inches over or under half a foot in any case	–	6	–
For pilotage of every such ship or vessel from Poolbeg to the Quays, one shilling and six-pence per foot	–	1	6
For pilotage of all foreign ships or vessels coming into the harbour from within the Banks over the Bar, four shillings per foot	–	4	–
For pilotage of every such ship or vessel from Poolbeg to the Quays, one shilling and sixpence per foot	–	1	6
For pilotage of all foreign ships or vessels coming into the harbour from within the Heads over the Bar, three shillings per foot	–	3	–
For pilotage of all such ships or vessels from Poolbeg to the Quays, one shilling and sixpence per foot	–	1	6
For pilotage of all British or Irish ships or vessels (except ships and vessels laden with coals, with fish in bulk, or with potatoes,) coming into the harbour from without the Banks over the Bar, three shillings per foot, and so in proportion for half a foot, as aforesaid	–	3	–
For pilotage of all such ships and vessels (except as aforesaid) from Poolbeg to the Quays, one shilling per foot	–	1	–
For pilotage of all such ships or vessels (except as aforesaid) coming into the said harbour from within the Banks over the Bar, two shillings per foot	–	2	–
For pilotage of all such ships or vessels (except as aforesaid) from Poolbeg to the Quays, one shilling per foot	–	1	–
For pilotage of every such ship or vessel (except as aforesaid) coming into the harbour from within the Heads over the Bar, one shilling and sixpence per foot	–	1	6
For pilotage of every such ship or vessel from Poolbeg to the Quays, one shilling per foot	–	1	–
For pilotage of every such ship or vessel laden with coals, not coming from any part of Ireland, coming into the harbour from without the Banks over the Bar, two shillings per foot	–	2	–
For pilotage of every such ship or vessel from Poolbeg to the Quays, sixpence per foot	–	–	6
For pilotage of all such ships or vessels not coming from any part of Ireland, laden with coals, coming into the harbour from within the Banks over the Bar, one shilling per foot	–	1	–
For pilotage of every such ship or vessel from Poolbeg to the Quays, sixpence per foot	–	–	6
For pilotage of all such ships or vessels laden with coals, coming into the harbour from within the Heads over the Bar, one shilling per foot	–	1	–
For pilotage of all such ships or vessels from Poolbeg to the Quays, sixpence per foot	–	–	6
And the like rates beforementioned, payable by colliers, or ships or vessels laden with coals, for pilotage inwards, to be paid and payable by all coasting ships and vessels taking pilots on board.			
For pilotage of all foreign ships or vessels laden with merchandise going out of the said harbour from the Quays to Poolbeg, one shilling and sixpence per foot	–	1	–
For pilotage of all such foreign ships or vessels from Poolbeg over the Bar, one shilling and sixpence per foot	–	1	–
For pilotage of all foreign ships or vessels in ballast which shall take a pilot on board going out of the said harbour from the Quays to Poolbeg, one shilling per foot	–	1	–
For pilotage of all such foreign ships or vessels from Poolbeg over the Bar, one shilling per foot	–	1	–
For pilotage of British or Irish ships or vessels going out of the said harbour from the Quays to Poolbeg, one shilling per foot	–	1	–
For pilotage of every such ship or vessel from Poolbeg over the Bar, one shilling per foot	–	1	–

NAMES of PILOTS.

Dennis Mooney (Master) - aged 64	John Murphy - - - aged 50	Bartholomew Tallant - aged	
Thomas Roache - ditto - - 54	James Doyle - - - - 43	James Murphy - - - -	
Patrick Doyle - ditto - - 52	Joseph Kearns - - - - 44	Patrick Murphy - - -	
George Warren - ditto - - 42	John Baxter - - - - 51	Michael Doyle - - -	
John Hammond - - - 53	Matthew Shannon - - - 50	James Sharkey - - -	
John Archbold - - - 64	George Archbold - - - 44	Patrick Byrne - - -	
John Kelly - - - - 64	James Warren - - - - 41	Christopher Tallant, junior -	
John Byrne - - - - 59	John Irwin - - - - 40	Joseph Archbold - -	
James Langan - - - - 52	Richard Baxter - - - 42	Patrick Doyle - - -	
Michael Swords - - - 53	George Stone - - - - 42	Joseph Warren - - -	
Samuel Conner - - - 52	Hugh Tallant - - - - 38	Peter Tallant - - -	
Christopher Gallagher - - 56	James Kelly - - - - 41	Christopher Archbold - -	
Christopher Tallant, senior - 51	Patrick Archbold - - - 38	Joseph Swords - - - -	

SUB-PILOTS.

Joseph Archbold - - aged 32	Edward Archbold - - aged 21	John Murrey.
Wm. M'Keon - - - - 26	John Archbold - - - 17	John Archbold.
Thomas Roch - - - - 19	Lawrence Murphy.	Michael Tallant.

PORT OF DUBLIN—*continued.*

RATES of PILOTAGE. *See* Bye-Laws, p. 102.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s. d.
de the Banks to the Pigeon Quays	1,921	2,354 2 10	–	– – –	–	– – –	–	Nil –	1,921	2,354 2 10
e the Banks to the Pigeon Quays	1,204	879 10 9	–	– – –	–	– – –	–	– –	1,204	879 10 9
de the Banks to the Docks or	–	– –	201	512 15 1	191	564 6 6	–	– –	392	1,077 1 7
e the Banks to the Docks or	–	– –	121	207 7 2	44	85 9 3	–	– –	165	292 16 5
de the Banks into Kingstown	136	134 18 6	–	– – –	–	– – –	–	– –	136	134 18 6
e the Banks into Kingstown	56	29 13 6	–	– – –	–	– – –	–	– –	56	29 13 6
to Kingstown Harbour	–	– –	11	22 6 2	9	14 17 –	–	– –	20	37 3 2
sters	1	1 6 –	–	– – –	–	– – –	–	– –	1	1 6 –
TOTAL	3,318	3,399 11 7	333	742 8 5	244	664 12 9	–	– –	3,895	4,806 12 9
										4,436 17 11 (British).

(2.)—OUTWARDS.

s and Quays to Poolbeg Light-	743	292 11 9	–	– – –	44	19 16 11	–	Nil –	787	312 8 8

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of PILOTAGE.

Dr.	£. s. d.	*Cr.*	£. s. d.	£. s. d.
nt received for fines and res	24 – –	By expenditure beyond receipts, 1860		2,016 13 6½
		By amount paid for salaries of officers		190 3 –
		By amount paid for or in respect of pilot boats		710 15 1
		By amount paid for pensions or superannuations		98 – –
amount d for – Inward pilotage	4,436 17 11	By gross amount of inward pilotage	4,436 17 11	
Outward pilotage	312 8 8	By deductions of masters' and mates' salaries 120 – –		
ences on foreign vessels, privileged as British— inwards	460 12 5	By deduction of one-fifth part for the expense of maintaining the efficiency of four pilot boats 863 7 7		
o – ditto – outwards	18 19 –		983 7 7	
				3,453 10 4
nt received by sale of old	25 4 –	By amount of outward pilotage paid to river pilots free of deduction		312 8 8
ce	1,890 17 7½	By amount paid sea pilots for difference on foreign vessels	460 12 5	
		By deduction of one-fifth as above for maintaining boats	92 2 5	
				368 10 –
		By amount of outward pilotage paid river pilots, free of deduction		18 19 –
£.	7,168 19 7½		£.	7,168 19 7½

January 1862. *Wm. Hutchison,* Pilot Master.

PORT OF DUNDALK.

BYE-LAWS.—Nil.

NAMES of PILOTS.

Henry Townley - - aged 36	James Shulan - - - aged 50	Richard Duffy - - - age
William Townley - - - 30	Michael Ingerson - - - 70	James Byrne - - - -
Thomas Connell - - - 28	Thomas Neacy - - - 26	Thomas Byrne - - - -
Mathew Flinn - - - - 72	Patrick Trinnor - - - 53	James O'Neale - - -
Pat. M'Cahy - - - - 67	James Moran - - - - 50	Thomas M'Aisle - - -
Pat. Neacy - - - - 63	Edward Finnigan - - - 64	William Gilmer - - -
John Murnihan - - - 32	Hugh Byrne - - - - 56	Henry O'Neale - - -
Owen Gallaher - - - 25	Patrick Magarry - - - 63	Henry Burns - - - -
Thomas Gallaher - - - 23	John Gorman - - - - 45	John Fanell - - - -
Mathew Murnihan - - - 27	John Lamb - - - - 38	

RATES of PILOTAGE.

The Rates printed in Parl. Paper, No. 516 of 1855, p. 244, and in Parl. Paper, No. 5, Sess. 2 of 1857, p. 121, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.	TOTALS	
	COASTERS.				OVERSEA.						
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s.
Inwards - - - -	421	207 8 6	190	120 5 2	10	22 8 3	26	53 8 6	- - nil - -	647	403 1
Outwards - - -	372	160 7 4	239	37 2 8	29	41 16 9	7	9 16 4	- - nil - -	647	249
TOTAL Inwards and Outwards - -	793	367 15 10	429	157 7 10	39	64 5 -	33	63 4 10	- - -	1,294	652 1

21 June 1862. *Thos. J. Pasler*, Secretary.

PORT OF GALWAY.

REGULATIONS and RATES of PILOTAGE issued by the Harbour Commissioners.

The Regulations and Rates mentioned at p. 246 of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS.

Joseph Evans - - - - aged 44	}	*Limits*:—To pilot vessels from Roadstead to Galway Dock, and *vice versâ*.
Bartly Oliver - - - - - 41	}	

OUTER PILOTS:

Bartly Donohoe - - - - aged 42	}	*Limits*:—To pilot vessels from or outside Arran Islands to Galway Roadstead, and *vice versâ*.
Bryan Joyce - - - - - - 57	}	
Michael Joyce - - - - - - 35	}	

PORT OF GALWAY—*continued.*

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

NCES hich TED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOTALS.	
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.		
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.				
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amount.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.			£. s. d.
ad to Gal- - -	122	77 17 4	8	3 2 6	–	– –	4	1 17 6	16	36 17 8	4	2 17 6	nil	164	122 12 6
29 of the above vessels took pilots from Arran Islands to Roadstead; amount paid to them under schedule, Galway Harbour Act - - - - - - - - - - - - - - - - - -															122 – 3
													TOTAL - - £.		244 12 9

(2.)—OUTWARDS.

; Dock to - -	140	80 19 10	–	– –	4	1 17 6	–	– –	15	35 12 8	5	4 2 6	nil	164	122 12 6
													TOTAL Receipts - - - £.		367 5 3

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s. d.
nount received for inward pilotage adstead to Floating Dock - -	122 12 6	By amount paid to pilots - - -	348 18 –
nount received for outward pilotage ating Dock to Roadstead - -	122 12 6	By amount paid collection fees - -	18 7 3
nount received inwards from Arran nd Blackhead to Roadstead -	122 – 3		
£.	367 5 3	£.	367 5 3

y 1862.

P. Skirrett, Collector.

PORT OF LIMERICK.

TIONS and RATES of PILOTAGE issued by the Harbour Commissioners.—The Regulations and Rates printed in Parl. Paper, No. 516 of 1855, pp. 248, 249, are still in force.

NAMES of PILOTS.—No alteration since last Return.

AMOUNT received for PILOTAGE.—No information can be given.

PORT OF LONDONDERRY.

BYE-LAWS.

The Bye-Laws printed at p. 112 of Parl. Paper, No. 244 of 1859, are still in force.

NAMES of PILOTS.

John Loughrey	aged 63	Neil Gillespie, jun.	aged 37	To pilot vessels of any draught of wa harbour.
Neil Gillespie, sen.	68	Daniel M'Carron	41	
William Loughrey	58	Hugh M'Laughlin	47	
Patrick M'Laughlin	51	James O'Donnell, sen.	71	
Edward M'Gonigall	51	James M'Daid	56	
Roger M'Cann	60	Hugh O'Donnell	47	
Michael Harkin	52	Philip M'Daid	48	
Daniel M'Daid	57	James O'Donnell, jun.	37	
Patrick Rudden	49	Patrick M'Gonigal	51	
Daniel M'Laughlin	41	William Bradley	42	
John Gillespie, sen.	41	John Gillespie, jun.	37	
Daniel M'Cann	38	Owen M'Daid	57	
Neil Loughrey	33			
Bernard Gillespie	aged 66			To pilot vessels of 10 feet draught of w
Patrick O'Donnell	aged 52	Laughlin M'Cann	aged 29	Supernumerary Pilots :—To pilot vess draught of water, if boarded inside the Buoy, and not previously boarded by pilot.
James Smith	52	Neil Gillespie, jun.	38	
John Smith	28			
Daniel Gillespie	aged 30	Edward Loughrey	aged 27	Supernumerary Pilots :—To pilot vess draught to Moville, if not previously b a branch pilot, and nine feet from M Londonderry.
John Gillespie, jun.	34	Thomas M'Candless	28	
John M'Laughlin	aged 29	John O'Donnell	aged 25	Apprentices :—To pilot vessels when branch pilot nor a supernumerary pil procured.
Thomas Holland	40	Con. O'Donnell	26	
Neil M'Laughlin	33	Neil M'Laughlin	28	
Philip M'Daid	26			

RATES of PILOTAGE.

The Rates printed at p. 109 of Parl. Paper, No. 243 of 1861, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.								FOREIGN VESSELS.					TOT
	COASTERS.				OVERSEA.				PRIVILEGED.				UNPRIVILEGED.	
	Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.		Not Towed by Steam.		Towed by Steam.			
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.		No.
		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.		
From the Sea, Greencastle, or Moville to Londonderry	1,117	737 9 -	154	209 1 3	12	25 7 4	62	142 16 -	25	65 7 7	53	125 19 1	- nil -	1,423
From the Sea to Moville	6	2 15 2	-	- - -	-	- - -	-	- - -	1	1 17 4	-	- - -	- -	7
From the Sea to Londonderry	-	- - -	-	- - -	-	- - -	-	- - -	2	3 15 10	-	- - -	- -	2
From the Sea to Moville, being the Mail Steamers from Canada calling here weekly, which vessels pay inward pilotage only.	-	- - -	-	- - -	27	58 15 -	-	- - -	-	- - -	-	- - -	- -	27
TOTAL	1,123	740 4 2	154	209 1 3	39	84 2 4	62	142 16 -	28	71 - 9	53	125 19 1	- -	1,459

(2.)—OUTWARDS.

From Moville to Sea	6	1 11 6	-	- - -	-	- - -	-	- - -	1	1 8 -	-	- - -	- nil -	7
From Derry to the Sea, Greencastle, or Moville.	1,232	457 6 1	10	9 12 -	49	57 1 9	17	22 6 10	63	70 9 -	17	22 1 2	- -	1,388
From Moville to the Sea, being the Canadian mail steamers which call weekly in this harbour, and which pay no outward pilotage.	-	- - -	-	- - -	27	- - -	-	- - -	-	- - - -	-	- - -	- -	27
TOTAL	1,238	458 17 7	10	9 12 -	76	57 1 9	17	22 6 10	64	71 17 -	17	22 1 2	- -	1,422

PORT OF LONDONDERRY—*continued.*

ACCOUNT showing the Receipt and Expenditure of Monies received in respect of PILOTAGE.

Dr.	£.	s.	d.	*Cr.*	£.	s.	d.
t of fees received from applicants ses and certificates - - -	11	5	–	By amount paid for salaries of secretary, clerk and other officers - - - - -	100	14	8
t received as contribution to Su- iation or Widows' Fund - -	13	13	11	By amount paid for pensions or superannuations	13	13	11
t received for fines and forfeitures	14	6	11	By amount of inward pilotage paid to Pilots -	1,301	13	10
amount received { inward pilotage -	1,373	3	7	By amount of outward pilotage paid to Pilots	606	17	10
- - - { outward pilotage	641	16	4	By amount received for licenses, fines and forfeitures, transferred to the Harbour Commissioners' Account - - - -	31	5	6
£.	2,054	5	9	£.	2,054	5	9

ay 1862. *A. H. Stewart*, Secretary.

PORT OF NEW ROSS.

ws.—The Act for the better regulating and improving the Port and Harbour of New Ross, passed in the Session of 1861, contains provisions for the regulation and government of Vessels within the said Port and Harbour.

NAMES of PILOTS.—The persons mentioned at p. 111 of Parl. Paper, No. 243 of 1861, are still acting.

RATES of PILOTAGE.

he Registered Tonnage	Vessels arriving from or sailing on a Foreign Voyage.	Vessels trading to or from a Port in the United Kingdom.	Where the Registered Tonnage	Vessels arriving from or sailing on a Foreign Voyage.	Vessels trading to or from a Port in the United Kingdom.
	£. s. d.	£. s. d.		£. s. d.	£. s. d.
der 40 - - - -	– 8 –	– 5 –	275 and under 300 - - -	2 9 6	1 13 –
50 - - - -	– 10 –	– 6 –	300 „ 325 - - -	2 11 9	1 14 6
60 - - - -	– 11 6	– 7 6	325 „ 350 - - -	2 14 –	1 16 –
70 - - - -	– 15 9	– 10 6	350 „ 375 - - -	2 16 3	1 17 6
80 - - - -	– 18 –	– 12 –	375 „ 400 - - -	2 18 6	1 19 –
90 - - - -	1 – 3	– 13 6	400 „ 450 - - -	3 – 9	2 – 6
100 - - - -	1 2 6	– 15 –	450 „ 500 - - -	3 5 3	2 3 –
110 - - - -	1 4 9	– 16 6	500 „ 550 - - -	3 9 9	2 5 6
120 - - - -	1 7 –	– 18 –	550 „ 600 - - -	3 14 3	2 8 –
130 - - - -	1 9 3	– 19 6	600 „ 650 - - -	3 18 9	2 10 6
140 - - - -	1 11 6	1 1 –	650 „ 700 - - -	4 3 3	2 13 –
150 - - - -	1 13 9	1 2 6	700 „ 750 - - -	4 7 9	2 15 6
160 - - - -	1 16 –	1 4 –	750 „ 800 - - -	4 12 3	2 18 –
175 - - - -	1 18 3	1 5 6	800 „ 850 - - -	4 16 9	3 – 6
200 - - - -	2 – 6	1 7 –	850 „ 900 - - -	5 1 3	3 3 –
225 - - - -	2 2 9	1 8 6	900 „ 950 - - -	5 5 9	3 5 6
250 - - - -	2 5 –	1 10 –	950 „ 1,000 - - -	5 10 3	3 8 –
275 - - - -	2 7 3	1 11 6	1,000 and upwards - - -	5 14 9	3 10 6

ch vessels proceeding up the Port and Harbour above the limits of the Borough of New Ross to pay additional rates, not exceeding one-third more than the foregoing rates.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

ISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
ekpoint to New Ross -	262	£. s. d. 158 18 10	20	£. s. d. 47 14 –	30	£. s. d. 66 5 9	- - nil - -		312	£. s. d. 272 18 7

(2.)—OUTWARDS.

ekpoint to New Ross -	262	158 18 10	20	46 4 9	30	66 5 9	- - nil - -		312	271 9 4

s coming to this port are obliged to take pilots of the Port and Harbour of Waterford, from the entrance of that harbour to the junction of the r and Barrow, called Cheekpoint, where the Port of New Ross commences. The amount of pilotage paid to the Waterford Harbour Commis- not known to the Commissioners of this port.

turn can be given by the New Ross Port and Harbour Commissioners of the pilotage paid by vessels previous to their arrival at Cheekpoint, he entrance to the Port of New Ross, inasmuch as same is paid to the Commissioners of the Port and Harbour of Waterford.

PORT OF NEW ROSS—*continued.*

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of PILOTAGE.

Dr.	£. s. d.	*Cr.*	£.
To amount received for fines and forfeitures -	2 10 –	By amount paid to officers - - -	84
To gross amount received for { inward pilotage -	272 18 7	By amount paid for rent of offices, &c. -	12
To gross amount received for { outward pilotage	271 9 4	By amount paid for or in respect of pilot boats, buoys, &c. - - - -	65
(To balance of last year's account, £.114. 1. 7.)		Rate collector's per-centage - - -	12
		Treasurer's per-centage - - - -	11
		Paid seven pilots - - - - -	347
		By balance carried to next account - -	13
£.	546 17 11	£.	546

22 January 1862.

James Kearns, Clerk

PORT OF NEWRY.

BYE-LAWS issued by the Newry Navigation Company.—Nil.

NAMES of PILOTS.

The Persons mentioned at p. 112 of Parl. Paper, No. 243 of 1861, are still acting, with the exception of Wm. M'Ate Christopher M'Garry (river pilots) deceased.

RATES of PILOTAGE.

Bar Pilotage.

For Vessels boarded at any distance outside the Bar of Carlingford not exceeding Five Miles, Hawlbowling Lighthouse bearing N.E. to N.W., to Warrentpoint Roads :—

	Per Foot of Draft of Vessel. s. d.
For every Vessel from a Foreign Port - -	– 10
For every Cross-channel Trader or Coaster -	– 10

For Vessels boarded inside the Bar to Warrenpoint Roads :—

For every Vessel from a Foreign Port - -	– 6
For every Cross-channel Trader or Coaster -	– 6

OUTWARDS.

One-third of the above Rates.

River Pilotage.

	Per Regis s.
For every Vessel - - { Inwards - -	–
For every Vessel - - { Outwards - -	–
And if the Pilot be required to remain on board the Vessel while passing through the Canal to or from Newry - - - -	2 addi

AMOUNT received for PILOTAGE.

The information required cannot be given. No part of the pilotage is collected in this office, but is received by th themselves, who are scattered over a large tract of the coast. The Act does not render it imperative on all vessels to take numbers, particularly regular traders, do not do so ; steam vessels never do. The pilots are, moreover, engaged in other p except when their services are required in their capacity as pilots, which occurs at very irregular periods.

31 January 1862.

Robert A. Plunkett, Secretary.

PORT OF SLIGO.

REGULATIONS issued by the Commissioners of the Port and Harbour.

The Regulations printed at p. 264 of Parl. Paper, No. 516 of 1855, are still in force.

NAMES of PILOTS and APPRENTICES.

Names of Pilots.				Names of Apprentices.	
. Bruen, pilot - -	aged	—	William Gillan - aged 25 Pat Kilgallen - - 38 Martin Burns - - 60 Michael Conway, sen. - 57 Francis Feeney - - 49 John M'Laughlin - 63 Francis Heraty - - 52 James Caraway - - 32 Bartly Hewt - - 31 Pat Caraway - - 53 Pat Caraway, jun. - 25	Martin Bruen - aged 24 Pat Bruen - - - 24 Andrew Kilgallen - 22 Francis Feeney - - 22 John Caraway - - 22 Pat Gillan - - - 20 John Bruen - - 23 Andrew O'Hara - 23 Francis Heraty - - 22
Bruen - -		46			
Gillan - -		46			
Gowan - -		40			
ien, sen. -		36			
M'Gullen -		31			
ien, jun. -		31			
Conway -		28			
Burns - -		31			

Licensed to pilot vessels from Wheaten Rock, in Sligo Bay, to the Quays of Sligo, in and out.

RATES OF PILOTAGE.—The Rates printed at p. 115 of Parl. Paper, No. 287 of 1860, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

STANCES for which ILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.				TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.			
	No.	Amount.	No.	Amount.	No.	Amount.			No.	Amount.
		£. s. d.		£. s. d.		£. s. d.				£. s. d.
aten Rock (in Sligo Sligo Quays.	325 Steamers, 156	392 3 10	13	22 8 –	17	27 13 2	- - nil - -		511	442 5 –

(2.)—OUTWARDS.

o Quays to Sea -	325 Steamers, 156	266 5 5	13	14 5 6	17	17 2 1	- - nil - -		511	297 13 –

There are but three steamers, but plying weekly; each voyage is counted as one steamer.

ACCOUNT of the RECEIPT and EXPENDITURE of all MONIES received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s. d.
nt received as contribution to Super-ation or Widows' Fund - - -	61 2 3	Amount paid to officers - - - -	24 13 –
s amount received { inward pilotage -	442 5 –	Amount paid for pensions or superannuations	61 2 3
- - - - { outward pilotage	297 13 –	Balance paid to pilots - - - -	715 5 –
£.	801 – 3	£.	801 – 3

May 1862.

Moses Mond, Secretary.

PORT OF TRALEE.

BYE-LAWS and REGULATIONS issued by the Public Works Loan Commissioners.

The Bye-Laws printed at p. 113 of Parl. Paper, No. 243 of 1861, are still in force.

NAMES of PILOTS.

John Gallivan	aged 60	John Crowley	aged 38
Morgan King	24	Cornelius Crowley	47
Thomas Connor	36	Patrick Sullivan	49
Jeremiah Brassil	34	Richard Cantillon	64
Daniel Crowley	60	Daniel Moriarty	73
Patrick Crowley	49		

Limits.—Pilotage of vessels from the Tralee to the limits of the harbour, bet Lighthouse on Samphire Island, and Church.

Rates of Pilotage.—The Rates printed at p. 116 of Parl. Paper, No. 287 of 1860, are still in force.

AMOUNT received for Pilotage of Vessels in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTAL	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Am
		£. s. d.		£. s. d.		£. s. d.			£.
From outside the limits of the harbour to the anchorage at the Samphire Island, and to the Basin	50	50 19 9	20	42 19 –	13	45 17 6	nil	70	139

(2.)—OUTWARDS.

From the Basin or anchorage at the Samphire Island, to outside the harbour	46	26 9 –	2	1 7 9	–	–	nil	–	27

These particulars are taken from the returns of the pilots. Pilotage is paid to them by the masters of vessels—not through the Harbour Offic

ACCOUNT of the Receipt and Expenditure of Monies received in respect of Pilotage.

Dr.	£. s. d.	*Cr.*	£. s.
Gross amount received by the pilots for { inward pilotage	139 16 3	Amount paid for or in respect of pilot boats, buoys, &c.	7 19
{ outward pilotage	27 16 9	Gross amount paid by masters of vessels to pilots for inwards and outwards pilotage	167 13
Balance paid by Public Works Loan Commissioners	7 19 8		
£.	175 12 8	£.	175 12

27 January 1862.

W. Hilliard

PORT OF WATERFORD.

...ws and RATES of PILOTAGE issued by the Harbour Commissioners.—The Bye-Laws and Rates printed at pp. 269, 270 of Parl. Paper, No. 516 of 1855, still remain in force.

...S OF PILOTS.—*See* the List printed at p. 114 of Parl. Paper, No. 243 of 1861—Delete the Names of Matthew Burke, ... Kennedy and John Galgey, and add the Name of James Murphy, aged 55. Subject to these alterations, the persons ...ned are still acting.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES.	BRITISH VESSELS. COASTERS. No.	BRITISH VESSELS. COASTERS. Amount. £. s. d.	BRITISH VESSELS. OVERSEA. No.	BRITISH VESSELS. OVERSEA. Amount. £. s. d.	FOREIGN VESSELS. No.	FOREIGN VESSELS. Amount. £. s. d.	TOTALS. No.	TOTALS. Amount. £. s. d.
...Saltees eastward, or ...ewtown Head westward - - - - - To Passage -	–	– – –	7	12 5 –	3	6 15 –	10	19 – –
To Cheekpoint	–	– – –	15	32 6 8	12	28 18 –	27	61 4 8
To Waterford -	–	– – –	59	195 19 5	71	219 15 8	130	415 15 1
...gebun eastward, or ...t westward - - To Passage -	–	– – –	5	6 2 8	5	5 15 4	10	11 18 –
To Cheekpoint	–	– – –	4	8 1 –	1	1 6 8	5	9 7 8
To Waterford -	–	– – –	21	57 16 3	18	52 10 5	39	110 6 8
...k Tower (Harbour's - - - - - To Passage -	194	133 8 5	7	9 9 1	16	19 9 7	217	162 7 1
To Cheekpoint	213	182 4 3	6	9 18 3	5	6 16 –	224	198 18 6
To Waterford -	1,586	2,363 2 3	17	33 17 11	14	33 8 9	1,617	2,430 8 11
...age - - - - To Cheekpoint	1	– 6 –	–	– – –	–	– – –	1	– 6 –
To Waterford -	27	17 1 5	–	– – –	–	– – –	27	17 1 5
TOTAL - - -	2,021	2,696 2 4	141	365 16 3	145	374 15 5	2,307	3,436 14 –

(2.)—OUTWARDS.

...terford - - To Passage - -	1,616	1,034 17 7	2	1 10 3	8	4 8 3	1,626	1,040 16 1
To Hook Tower (Harbour's Mouth)	49	59 12 11	24	30 8 9	98	123 7 5	171	213 9 1
...ekpoint to Hook Tower - -	–	– – –	1	– 15 –	1	– 16 6	2	1 11 6
...sage to Hook Tower - - -	15	8 1 4	26	20 4 [illegible]	24	18 17 7	65	47 3 4
TOTAL - - -	1,680	1,102 11 10	53	52 18 5	131	147 9 9	1,864	1,303 – –

...e above, 255 of those entering, and 21 of those leaving this port, it is believed had to pay pilotage to the New Ross Harbour Commissioners; but the amount is not known.

Note.—In the Port of Waterford, Foreign and British vessels pay alike; and vessels towed by steam pay the same as those not towed.

ACCOUNT of the Receipt and Expenditure of MONEY received in respect of Pilotage.

RECEIPT.	£. s. d.	EXPENDITURE.	£. s. d.
...mount for - - - - inward pilotage -	3,436 14 –	Pilots' proportion of pilotage earned - - - -	2,633 7 3
outward pilotage -	1,303 – –	Salaries of pilot officers at Dunmore, Passage and Waterford - - - - - - - - -	250 – –
	4,739 14 –	Retired allowance of late pilot master - - - -	81 5 –
...on bank account to 31 March 1861 - - -	22 4 –	Supplying boat and crew at Passage pilot station - -	120 – –
		Transmission of daily return from Passage pilot station -	18 5 –
		Office expenses at Dunmore and Passage - - -	19 15 –
		Office expenses and other general charges at Waterford -	277 19 4
		Expenses of pilot cutters - - - - - -	669 1 11
		Gratuities to two pilots disabled on sea duty - - -	26 – –
		Funeral expenses of a pilot - - - - - -	1 – –
		Allowances to four superannuated pilots - - -	95 – –
		Pensions to widows and orphans of pilots - - -	160 7 6
		Pilotage buoys and beacon - - - - - -	56 11 10
		Life boat subscription - - - - - - -	5 – –
Receipt - - -	4,761 18 –	Expenditure - - -	4,413 12 10
...due to Waterford Harbour Commissioners, December 1861 - - - - - - - -	1,596 15 1	Balance stated on last account as due to Waterford Harbour Commissioners, 31st December 1860 - - -	1,945 – 3
£.	6,358 13 1	£.	6,358 13 1

...April 1862.

John Farrell, Secretary.

PORT OF WESTPORT.

BYE-LAWS.—Nil.

NAMES of PILOTS.—The Pilots mentioned at p. 272 of Parl. Paper, No. 516 of 1855, are still acting.

RATES of PILOTAGE.—The Rates printed at p. 272 of Parl. Paper, No. 516 of 1855, are still in force.

AMOUNT received for PILOTAGE of VESSELS in 1861.

(1.)—INWARDS.

DISTANCES for which PILOTED.	BRITISH VESSELS.				FOREIGN VESSELS.			TOTALS.	
	COASTERS.		OVERSEA.		PRIVILEGED.		UNPRIVILEGED.		
	No.	Amount.	No.	Amount.	No.	Amount.		No.	Amou
		£. s. d.		£. s. d.		£. s. d.			£. s.
From the Lighthouse of Innisgort to any place within the Harbour of Westport - -	90	107 6 10½	3	10 9 3	8	18 - -	- - Nil - -	101	135 1

(2.)—OUTWARDS.

From any place within the Harbour of Westport to the Lighthouse of Innisgort - -	90	107 6 10½	3	10 9 3	8	18 - -	- - Nil - -	101	135 1

ACCOUNT of the Receipt and Expenditure of Monies received in respect of PILOTAGE.

Dr.	£. s. d.	*Cr.*	£. s.
To amount received for fines and forfeitures -	3 - -	By amount paid to pilots - - - -	244 9
To gross amount received for Inward pilotage	135 16 1½	Carried to credit of Harbour Commissioners, being 10 per cent. deducted from pilotage account for collection, and including the amount of a fine - - - - -	30 3
To gross amount received for Outward pilotage	135 16 1½		
£.	274 12 3	£.	274 12

22 January 1862.

Peter O'Malley, Secretary.

PORT OF WEXFORD.

REGULATIONS and RATES of PILOTAGE issued by the Harbour Commissioners.

:he Statement at p. 116 of Parl. Paper, No. 243 of 1861. The Regulations referred to, subject to the alterations thereinafter mentioned, are still in force.

NAMES of PILOTS.

Rooney - -	aged 65	Edward Murphy - -	aged 47	Licensed to pilot all vessels over the Bar, and up the harbour to Wexford Quays.	
King - - -	62	Anthony Eunis - -	39		
Larkin - - -	57	William Morris - -	39		
reen - - -	46	Nicholas Saunders - -	38		
Devereux - -	47	Robert Blake - - -	38		
hillips - - -	47	Thomas Murphy - -	70		
yrne - - -	aged 68	Patrick Dillon - -	aged 73	Harbour pilots.	
North - - -	75	Patrick Byrne - -	68		
nbert - - -	75				

Michael Sinnot (Apprentice Boy) - - - - - aged 18

AMOUNT received for PILOTAGE of VESSELS—The Amount is stated in the following Account.

ACCOUNT of the Receipt and Expenditure of MONIES received in respect of Pilotage.

	£.	s.	d.	*Cr.*	£.	s.	d.
s amount received for pilotage of 816 s, of which 3,796 tons were foreign, 9,814 tons were British - - -	1,244	9	–	By amount paid to 12 first-class pilots and five second-class or harbour pilots, and one boy - - - - - -	938	6	–½
				By amount paid for or in respect of pilot boats, buoys, &c. - - - - -	191	8	11½
				By amount paid for vessels towed in and out of harbour by the steam tug - -	55	7	9
				By balance carried to next account - -	59	6	3
£.	1,244	9	–	£.	1,244	9	–

March 1862.

John Richards, Secretary.

0.

PILOTAGE.

ABSTRACT

OF

RETURNS

RELATING TO

PILOTS AND PILOTA

IN THE

UNITED KINGDOM,

(Year ending 31 December 1861).

In continuation of Parliamentary Paper, No. 243 of 18

(*Presented pursuant to Act of Parliament.*)

Ordered, by The House of Commons, *to be Printed,*
23 *May* 1862.

[*Price* 1 *s.* 2 *d.*]

Under 16

RAMSGATE HARBOUR.

ABSTRACT

OF

ANNUAL ACCOUNT

OF THE

REVENUE AND EXPENDITURE

OF THE

ROYAL HARBOUR OF RAMSGATE TRUST,

For the Year ended 24th June 1861.

(*PRESENTED PURSUANT TO ACTS* 32 *&* 55 *GEO.* 3.)

Ordered, by The House of Commons, *to be Printed*,
4 *March* 1862.

(A.)—THE REVENUE OF THE ROYAL HARBOUR OF - - -

Dr.

		£. s.
TO the Town of Sandwich, for One Year's Parliamentary Allowance - - - - - -		200 -
To the Committee of Directors, for One Year's Parliamentary Allowance - - - - -		300 -
To the Works Account, for One Year's Expenditure on Works of Maintenance and Improvement -		4,674 2
To the Harbour Department, for One Year's Expenditure on this account, including Dredging, and Alterations to Steam Tugs - - - - - - - - - - - - - - -		8,251 11
To Travelling and Surveying Expenses, for One Year's Expenditure on this account - - -		302 13
To Salaries (Town Department), Office Rent, and Incidental Expenses - - - - - -		1,658 1
To Charges Account, viz., Fire Insurance, Income and Property Tax, Legal Expenses, Benefit Fund Contributions, and Sundries - - - - - - - -	730 10 7	
Amount appropriated for Special Pensions to Aged Men of Long Service, and others -	944 14 7	
		1,675 5
Balance carried to the Fund - - - - - -		2,005 9
£.		19,067 2

(B.)—THE FUND OF THE ROYAL HARBOUR OF - - -

Dr.		£. s.
1861: 24 June -	To Balance carried down - - - - - - - - - -	93,211 -
£.		93,211 -

Thos. M. Shadwell,
Secy. & Acct.

Royal Harbour of Ramsgate Office, 22, Austin Friars, London
5 February 1862.

WE, whose names are hereunto subscribed, having been appointed a Committee to examine and audit the Account
the Trustees, conformably with the directions contained in the Acts of the thirty-second and fifty-fifth years of the re
of his late Majesty GEORGE the Third, intituled, " An Act for the Maintenance and Improvement of the Harbou
" Ramsg

- - - RAMSGATE TRUST; for the year ended 24th June 1861.

Cr.

	£. s. d.	£. s. d.
Total Gross Receipts from the Passing Toll - - -	15,717 6 11⅛	
Deduct Commission and Incidents - - - - £. 983 1 9⅛		
„ Repayments of Duty - - - - - - 35 7 6		
	1,018 9 3⅛	
Local Receipts, viz.:		14,698 17 8
Dry Dock Dues - - - - - - - - - - -	179 4 –	
Slipway Dues - - - - - - - - - - -	33 19 6	
Storehouses Dues - - - - - - - - - - -	272 16 –	
Cranage, Wharfage, &c. - - - - - - - - - -	481 11 1	
Rents of Houses and Ground - - - - £. 1,346 18 8		
Less, Property Tax thereon - - - - - 31 19 7		
	1,314 19 1	
	2,282 9 8	
Deduct, Expenses of Collection - - - - - - - -	35 7 2	
		2,247 2 6
Dividends on Stock and Interest on Exchequer Bills - - - - - -	2,213 5 9	
Less, Income Tax thereon - - - - - - - - -	92 3 4	
		2,121 2 5
	£.	19,067 2 7

- - - RAMSGATE TRUST; for the year ended 24th June 1861.

Cr.

		£. s. d.
1860: 24 June -	By Balance brought forward - - - - - - - - - -	91,205 11 10
1861: 24 June -	By the Revenue, for transfer Balance thereof exceeding the Expenditure of this Trust, during the past year, by the sum of - - - - -	2,005 9 1
		93,211 – 11
„ „ -	By Balance brought down - - - - - - - - - £.	93,211 – 11

Ramsgate, in the County of Kent, and for cleansing, amending, and preserving the Haven of Sandwich, in the same County," Do hereby certify, That we have carefully examined the said Accounts from 24th June 1860 to 24th June 1861, and that we find them to be just and accurate; and that the Statements in this sheet, lettered (B.), and in that hereto annexed, lettered (A.), contain a true Account of the Revenue and Dependencies of the said Trust, to the aforesaid 24th day of June 1861.

Money Wigram,
Bonamy Dobree, } Auditors.

RAMSGATE HARBOUR.

ABSTRACT

OF

ANNUAL ACCOUNT of the REVENUE and EXPENDITURE of the ROYAL HARBOUR of RAMSGATE TRUST, for the Year ended 24th June 1861.

(Presented pursuant to Acts 32 & 55 Geo. 3.)

Ordered, by The House of Commons, *to be Printed,*
4 *March* 1862.

83.

Under 1 *oz.*

RAMSGATE HARBOUR.

RETURN to an Order of the Honourable The House of Commons, dated 30 July 1862;—*for*,

A RETURN "of the Amount of TOLLS, HARBOUR, or other DUES received from RAMSGATE HARBOUR for the last Ten Years; distinguishing the Amount received since the Harbour has been in the hands of the Government."

PART I.—AMOUNT received prior to the Date when the Harbour came into the hands of the Government.

For Year ending 30th June	Passing Tolls, less Commission and Charges.	Dues for use of Dry Dock, Slipway and Storehouses, less Cost of Collection.	Rents of Houses and Ground, less Property Tax and Repairs.	TOTALS.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1852 - -	17,415 17 6	417 17 8	1,484 14 6	19,318 9 8
1853 - -	15,761 13 9	435 1 2	1,575 13 –	17,772 7 11
1854 - -	13,127 12 1	627 5 3	1,520 5 –	15,275 2 4
1855 - -	13,608 – 1	705 19 11	1,482 – 3	15,796 – 3
1856 - -	13,854 3 7	946 16 –	1,459 9 –	16,260 8 7
1857 - -	13,717 16 7	894 10 1	1,640 5 10	16,252 12 6
1858 - -	14,813 18 7	979 4 1	1,607 18 10	17,401 1 6
1859 - -	14,785 2 2	815 18 5	1,351 4 –	16,952 4 7
1860 - -	14,359 19 5	1,365 – 4	1,721 9 4	17,446 9 1
1861 - -	14,698 17 8	932 3 5	1,314 19 1	16,946 – 2
Half-year ending 31 December 1861 - - -	8,293 16 7	236 12 3	1,092 17 1	9,623 5 11

PART II.—AMOUNT received since the Harbour came into the hands of the Government.

DATE.	Harbour Dues.	Dues for use of Dry Dock, Slipway and Storehouses and other Dues.	Rents of Houses and Ground.	TOTAL.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Half-year ending 30th June 1862 - - - -	439 8 –	1,227 1 1	718 11 9	2,385 – 10

James Booth.

Board of Trade, Whitehall, 4 August 1862.

H. R. Williams, Accountant.

RETURN of the Amount of Tolls, Harbour or other Dues received from Ramsgate Harbour, for the last Ten Years; distinguishing the Amount received since the Harbour has been in the hands of the Government.

(*Mr. Henry B. Sheridan.*)

Ordered, by The House of Commons, *to be Printed,*
7 *August* 1862.

STEAM VESSELS.

RETURN to an Order of the Honourable The House of Commons, dated 27 February 1862 ;—*for*,

A RETURN, " in a TABULAR FORM, with Consecutive Numbers, of the whole of the STEAM VESSELS Registered in the United Kingdom on or before the 1st day of January 1862 ; stating, in separate Columns, the following Particulars :—Official Number of Vessel ; Vessel's Name ; Port of Registry ; Date of Registry ; Date of Build ; Registered Owners : Dimensions of Vessels in Length and Breadth, and Depth of Hold ; Tonnage (exclusive of Engine Room) ; and Gross Tonnage, distinguishing Vessels built of Iron, and Vessels having Screw Propellers ; also distinguishing Vessels measured under the Merchant Shipping Act of 1854 from those measured under previous Acts ; and Estimated Horse Power of their Engines, and giving the Aggregate Number of Vessels and Amount of Tonnage ; with an INDEX for easy reference attached to it, giving the Names of the Vessels in Alphabetical Order, with Numbers to each, corresponding with the Consecutive Numbers in the Return (in continuation of Parliamentary Paper, No. 371, of Session 1861)."

(*Mr. Thomas Baring.*)

Ordered, by The House of Commons, *to be Printed*,
12 *June* 1862.

RETURN, in a TABULAR FORM, with Consecutive Numbers, of the whole of the STEAM VESSELS Registered in the United Kingdom on or before the 1st day of January 1862; stating, in separate Columns, the following Particulars: Official Number of Vessel; Vessel's Name; Port of Registry; Date of Registry; Date of Build; Registered Owners; Dimensions of Vessels in Length and Breadth, and Depth of Hold; Tonnage (exclusive of Engine Room), and Gross Tonnage, distinguishing Vessels built of Iron, and Vessels having Screw Propellers; also, distinguishing Vessels measured under the Merchant Shipping Act of 1854 from those measured under previous Acts; and Estimated Horse Power of their Engines, and giving the Aggregate Number of Vessels, and Amount of Tonnage; with an INDEX for easy reference attached to it, giving the Names of the Vessels in Alphabetical Order, with Numbers to each, corresponding with the consecutive Numbers in the Return (in continuation of Parliamentary Paper, No. 371, of Session 1861).

Vessels marked thus * have been measured previous to the Merchant Shipping Act of 1854.

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS.			TONNAGE.		Horse Power.	—
						Length.	Breadth.	Depth of Hold.	Exclusive of Engine Room.	Gross Tonnage.		
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1	- -	*Greenwich - -	London - 1835	1835	J. D. Mullens - - - - - - -	122 3 in.	15 1 in.	7 10 in.	96	—	—	
2	- -	*Beaver - - -	ditto - ,,	,,	Hudson's Bay Company - - - -	101 4 in.	20 0 in.	11 ½ in.	109	- -	70	
3	257	*City of Hamburgh -	ditto - 1836	1834	General Steam Navigation Company - -	160 5	23 8	15 9	333	518	140	
4	413	*John Bull - -	ditto - ,,	1835	- - ditto - - - - - - -	164 9	25 8	17 2	345	591	200	
5	24	*Caledonia - -	ditto - ,,	1836	- - ditto - - - - - - -	178 0	26 9	17 7	423	707	220	
6	18	*Giraffe - - -	ditto - ,,	,,	- - ditto - - - - - - -	142 0	22 8	14 6	232	410	120	
7	477	*Clarence - - -	ditto - ,,	,,	- - ditto - - - - - - -	178 0	27 0	17 5	426	767	240	
8	180	*Rainbow - - -	ditto - 1838	1837	- - ditto - - - - - - -	185 0	24 2	12 0	263	407	160	iron.
9	476	*Leith - - -	ditto - 1839	,,	- - ditto - - - - - - -	182 0	27 2	18 4	568	907	240	
10	13,700	*Daylight - - -	ditto - ,,	1838	London, Westminster, and Vauxhall Steam Packet Company.	82 4	13 5	6 8	30	51	20	iron.
11	13,701	*Starlight - - -	ditto - ,,	,,	- - ditto - - - - - - -	82 0	13 7	6 8	30	51	20	iron.
12	13,702	*Twilight - - -	ditto - ,,	,,	- - ditto - - - - - - -	82 0	13 5	6 8	30	51	24	iron.
13	13,703	*Moonlight - -	ditto - ,,	,,	- - ditto - - - - - - -	81 5	13 7	6 6	30	49	20	iron.
14	13,704	*Bridegroom - -	ditto - ,,	1839	- - ditto - - - - - - -	93 5	13 6	6 9	35	55	24	iron.
15	13,705	*Bride - - -	ditto - ,,	,,	- - ditto - - - - - - -	92 5	13 6	6 6	34	52	20	
16	- -	Queen Victoria -	ditto - ,,	1837	Frederick Squire - - - - -	83 6	10 9	6 2	35	52	—	
17	18,971	*Argus - - -	ditto - 1840	1840	Charles Lungley - - - - -	128 0	19 4	13 7	158	280	120	
18	367	*Sir Edward Banks -	ditto - 1841	1826	General Steam Navigation Company - -	151 5	19 7	15 5	180	323	120	
19	397	*Vivid - - -	ditto - ,,	1835	- - ditto - - - - - - -	156 9	22 1	14 7	228	429	180	
20	5,738	*Prince of Wales -	ditto - 1842	1841	Robinson Ridley - - - - -	100 5	13 4	7 5	60	83	32	
21	734	*Trident - - -	ditto - ,,	,,	General Steam Navigation Company - -	192 7	28 7	19 4	645	971	280	
22	30,719	*Hindostan - -	ditto - ,,	1842	Peninsular and Oriential Company - -	217 6	35 8	30 1	972	2,017	520	
23	13,970	*Tagus - - -	ditto - ,,	1837	- - ditto - - - - - - -	182 1	26 0	17 4	497	782	280	
24	4,256	*Grey Mare Meg -	ditto - ,,	1842	T. Petley and others - - - - -	72 4	15 6	9 0	14	71	50	
25	23,062	*Witch - - -	ditto - ,,	,,	Woolwich Steam Packet Company - -	108 0	13 0	6 7	40	62	32	
26	- -	*Hardy - - -	ditto - ,,	1836	John Nicholson - - - - - -	104 5	14 3	8 0	54	90	—	
						100 6	14 8	8 0	68	105	—	

32	15,862	*Monarch	-	-	ditto	-	„	1833	William Watkins	-	-	-	-	64	10 in.	13	11 in.	7	0	26	-	-	20	
33	7,624	*Beacon	-	-	ditto	-	1844	1837	Corporation of Trinity House	-	-	-		112	3	19	6	11	7	101	199		70	
34	9,167	*Samson	-	-	ditto	-	„	„	Thames Steam Towing Company	-	-	-		84	0	15	9	9	1	34	88		60	
35	4,274	*Robert Bruce	-	-	ditto	-	„	1844	Caledonian Steam Towing Company	-	-	-		95	8	18	4	9	4	49	130		80	
36	6,199	*Victory	-	-	ditto	-	„	1840	- - ditto	-	-	-	-	82	2	16	1	9	0	28	86		60	
37	6,168	*Souter Johnny	-	-	ditto	-	„	1836	- - ditto	-	-	-	-	82	7	15	8	9	4	37	86		40	
38	6,167	*Tam O'Shanter	-		ditto	-	„	1834	- - ditto	-	-	-	-	76	0	15	6 in.	9	0	40	-	-	35	
39	6,198	*Sir William Wallace			ditto	-	„	1841	- - ditto	-	-	-	-	98	1	17	9	10	0	47	128		80	
40	9,960	*Matrimony	-	-	ditto	-	„	1842	London, Westminster, and Vauxhall Steam Boat Company.					98	1	13	4	6	4	37	55		24	iron.
41	4,253	*New Unity	-	-	ditto	-	„	1844	Thomas Petley and others	-	-	-	-	95	0	16	7	9	9	35	95		160	
42	40,565	*Teviot	-	-	ditto	-	„	1841	Royal Mail Packet Company	-	-	-		214	3	33	7	30	6	1,122	1,793		450	
43	260	*Triton	-	-	ditto	-	1845	1845	General Steam Navigation Company	-	-			163	0	23	4	13	7	205	358		120	
44	215	*William Jolliffe		-	ditto	-	„	1836	- - ditto	-	-	-	-	143	7	20	2	13	9	197	311		100	
45	10,681	*Samson	-	-	ditto	-	„	1843	James Waller and another	-	-	-	-	83	5	16	3	9	0	31	90		40	
46	4,307	*Lass o'Gowrie	-	-	ditto	-	1846	1845	T. Petley and others	-	-	-	-	71	2	15	1	8	6	23	67		40	
47	250	*Water Witch	-	-	ditto	-	„	1835	General Steam Navigation Company	-	-			156	5	22	3	15	0	276	481		180	
48	4,257	*Trinity	-	-	ditto	-	„	1844	T. Petley and others	-	-	-	-	85	2	16	7	10	4	36	103		80	
49	- -	*Emmanuel	-	-	ditto	-	„	1841	Overton and Hughes	-	-	-	-	80	0	10	6	7	0	20	45		—	
50	23,065	*Sibyl	-	-	ditto	-	1847	1844	Woolwich Steam Packet Company	-	-			114	5	13	5	6	9	58	82		32	iron.
51	23,066	*Dryad	-	-	ditto	-	„	1846	- - ditto	-	-	-	-	117	0	13	2	7	0	60	82		32	
52	24,733	*City of Boulogne		-	ditto	-	„	1838	G. Sichel	-	-	-	-	135	4	20	5	11	9	217	313		120	
53	21,162	*Pekin	-	-	ditto	-	„	1847	Peninsular and Oriental Company	-	-			214	7	29	7	18	6	759	1,182		400	iron.
54	25,136	*Conway	-	-	ditto	-	„	1846	Royal Mail Packet Company	-	-	-		186	5	28	4	19	5	580	930		300	
55	12,757	*Paul Pry	-	-	ditto	-	„	1847	William Watkins	-	-	-	-	80	0	15	5	8	7	43	83		35	
56	4,254	*Thomas Petley		-	ditto	-	„	1846	T. Petley and others	-	-	-	-	89	2	16	6	10	1	43	108		80	
57	9,072	*Highland Maid		-	ditto	-	„	„	Daniel Barker and others	-	-	-	-	66	2	13	0	8	0	18	49		22	
58	- -	*Tonbridge	-	-	ditto	-	„	1845	Frederick Partridge and others	-	-	-		70	2	11	4	6	7	13	41		—	
59	26,440	*Citizen (G.)	-	-	ditto	-	184	1846	City Steam Boat Company	-	-	-		94	0	13	4	6	6	43	61		24	iron.
60	26,443	*Citizen (K.)	-	-	ditto	-	„	1847	- - ditto	-	-	-	-	103	5	12	3	6	4	58	75		24	iron.
61	26,434	*Citizen (A.)	-	-	ditto	-	„	1845	- - ditto	-	-	-	-	94	0	13	4	6	6	43	61		24	iron.
62	26,438	*Citizen (E.)	-	-	ditto	-	„	„	- - ditto	-	-	-	-	94	0	13	4	6	6	43	61		24	iron.
63	26,442	*Citizen (J.)	-	-	ditto	-	„	1847	- - ditto	-	-	-	-	103	5	12	3	6	4	58	75		24	iron.
64	26,435	*Citizen (B.)	-	-	ditto	-	„	1845	- - ditto	-	-	-	-	94	0	13	4	6	6	43	61		24	iron.
65	26,436	*Citizen (C.)	-	-	ditto	-	„	„	- - ditto	-	-	-	-	94	0	13	4	6	6	43	61		24	iron.
66	26,441	*Citizen (H.)	-	-	ditto	-	„	1847	- - ditto	-	-	-	-	95	5	13	5	6	3	40	57		24	iron.
67	26,444	*Citizen (L.)	-	-	ditto	-	„	„	- - ditto	-	-	-	-	103	5	12	3	6	4	58	75		24	iron.
68	26,439	*Citizen (F.)	-	-	ditto	-	„	1845	- - ditto	-	-	-	-	94	0	13	4	6	6	43	61		24	iron.
69	26,437	*Citizen (D.)	-	-	ditto	-	„	„	- - ditto	-	-	-	-	94	0	13	4	6	6	43	61		24	iron.
70	989	*Kent	-	-	ditto	-	„	1847	David Waddington	-	-	-	-	78	5	15	0	7	5	40	68		32	
71	988	*Essex	-	-	ditto	-	„	„	- - ditto	-	-	-	-	78	5	14	9	7	3	40	66		32	
72	30,714	*Oriental	-	-	ditto	-	„	1840	Peninsular and Oriental Company	-	-			220	0	33	5	28	5	1,104	1,788		420	
73	6,169	*Dougal	-	-	ditto	-	„	1847	Caledonian Steam Towing Company	-	-			76	3	14	1	9	4	37	76		60	
74	23,526	*Locomotive	-	-	ditto	-	„	1842	H. T. Styles	-	-	-	-	101	5	11	3	6	9	42	61		30	
75	22	Albion	-	-	ditto	-	„	1848	General Steam Navigation Company	-	-			174	0	23	2	13	2	213	338		120	
76	333	*Soho	-	-	ditto	-	1849	1823	- - ditto	-	-	-	-	150	5	24	8	17	3	242	433		200	

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
77	15,872	*Fanny	London - 1849	1842	Lee & Son	78 0	20 4	6 3	101	162	22	
78	15,874	*Hercules	ditto - „	1847	George Smith	85 9	22 9	9 9	104	294	25	
79	- -	*Disowned	ditto - „	1848	John M'Intosh	55 8	13 7	4 8	3	4	—	
80	25,126	*Trent	ditto - „	1841	Royal Mail Packet Company	212 0	32 8	30 0	1,236	1,857	450	
81	24,732	*Enterprise	ditto - „	1849	J. S. Rutter	83 0	9 0	5 0	9	29	30	iron.
82	25,154	*Bosphorus	ditto - „	„	W. Inman and others	173 6	24 3	14 6	330	446	80	
83	4,253	*Perseverance	ditto - „	„	Thomas Petley and others	97 0	17 7	10 8	57	147	100	
84	23,114	*Prince of Wales	ditto - „	1843	General Steam Navigation Company	180 0	21 0	10 0	139	246	136	iron.
85	46	*Lord John Russell	ditto - „	1846	W. H. Carey	120 4	22 8	12 0	207	255	40	iron.
86	23	Seine	ditto - „	1849	General Steam Navigation Company	175 0	23 3	13 1	212	336	120	iron.
87	25,144	*Thames	ditto - „	1841	Royal Mail Packet Company	212 0	33 0	30 3	1,255	1,889	450	
88	25,125	*Ripon	ditto - „	1846	Peninsular and Oriental Company	231 3	33 9	28 4	1,309	1,925	460	iron.
89	21	Rhine	ditto - „	1849	General Steam Navigation Company	190 2	25 8	14 6	278	441	140	iron.
90	- -	*Pottinger	ditto - „	1846	Peninsular and Oriental Company	220 3	34 5	20 9	890	1,350	450	iron.
91	82	*Sir Robert Peel	ditto - 1850	„	W. H. Carey	124 0	22 9	11 8	234	282	40	iron, screw.
92	13,902	*Derwent	ditto - „	1850	Royal Mail Packet Company	175 4	26 4	18 0	550	794	280	
93	16,173	*Vesta	ditto - „	1835	J. Howell	139 3	16 6	9 9	64	162	90	
94	13,954	*Euxine	ditto - „	1847	Peninsular and Oriental Company	222 7	29 4	18 5	729	1,165	400	iron.
95	735	*Tiger	ditto - „	1838	General Steam Navigation Company	162 0	25 6	16 9	379	606	242	
96	733	*Princess Royal	ditto - „	1841	- - ditto	177 7	25 4	17 8	494	748	200	
97	232	*Neptune	ditto - „	1837	- - ditto	173 0	24 8	17 1	364	600	200	
98	31,133	*Singapore	ditto - „	1850	Peninsular and Oriental Company	235 3	29 4	18 4	742	1,190	470	iron.
99	31,249	*Ganges	ditto - „	„	- - ditto	235 3	29 4	18 4	742	1,190	470	iron.
100	26,233	*Sons of the Thames	ditto - 1851	1840	W. P. Beech	138 0	16 5	8 9	80	135	56	iron.
101	20	*Concordia	ditto - „	1851	General Steam Navigation Company	179 7	23 3	13 5	327	465	136	iron.
102	127	Panther	ditto - „	„	- - ditto	180 5	23 3	13 4	231	360	136	iron.
103	4,283	*Friend to all Nations	ditto - „	„	Thomas Petley and others	107 6	20 0	9 5	57	152	240	iron.
104	7,666	*Newhaven	ditto - „	1847	William Geach	153 0	21 2	11 0	148	259	80	
105	30,712	*Shanghai	ditto - „	1851	Peninsular and Oriental Company	182 5	25 8	15 5	413	546	100	iron, screw.
106	4,377	*Sir Robert Hawks	ditto - „	1835	James Walter	76 4 in.	15 2 in.	8 6 in.	44	- -	40	
107	4,375	*Commodore	ditto - „	1840	Shipowners' Towing Company	90 0	17 8	10 2	40	111	80	
108	4,374	*Goliath	ditto - „	1846	Brook & Mace	103 0	17 3	10 0	45	119	100	
109	14,792	*Severn	ditto - „	1851	— Farr	85 1	10 8	5 2	28	38	16	iron.
110	12,755	*John Lee	ditto - 1852	1844	William Watkins	90 2	17 0	9 0	35	104	120	
111	31,143	*Madras	ditto - „	1852	Peninsular and Orientul Company	232 9	31 6	21 2	606	1,185	274	
112	- -	*Wonder	ditto - „	1847	Nicola Vidovich	87 1	16 7	9 2	31	94	—	
113	30,713	*Chusan	ditto - „	1851	Peninsular and Oriental Company	190 0	29 5	16 1	529	700	80	iron, screw.
						260 0	38 1	33 5	1,617	2,567	800	

117	4,282	*True Briton	ditto	„	„	[illegible]	234	0	31	4	21	2	608	1,186	274	iron, screw.
118	30,710	*Bombay	ditto	„	„	Peninsular and Oriental Company	203	6	25	3	16	7	451	677	154	iron, screw.
119	31,233	*Formosa	ditto	„	„	- - ditto	280	5	37	4	27	6	1,475	2,404	1,000	
120	13,832	*La Plata	ditto	„	1851	Royal Mail Packet Company	198	5	25	5	14	6	340	516	150	iron.
121	26	Moselle	ditto	„	1852	General Steam Navigation Company	68	4	14	0	8	2	19	55	25	
122	14,895	*Bolton	ditto	„	1848	Jackson & Bean	247	7	34	5	30	1	1,156	1,834	440	
123	13,932	Avon	ditto	„	1842	Royal Mail Packet Company	60	5	17	3	6	7	35	51	30	screw.
124	26,648	*Eversfield	ditto	„	1852	Henry Eversfield	96	1	16	6	9	4	43	106	—	
125	- -	*Mystery	ditto	„	„	R. D. Ross and another	111	4	16	8	9	9	36	122	—	
126	17,488	*Surprise	ditto	„	„	W. B. Caulfield	157	0	20	8	11	5	149	271	160	
127	8,214	*Irene	ditto	„	„	Corporation of Trinity House	122	0	20	3	12	2	145	214	- -	screw.
128	- -	*Otter	ditto	„	„	Hudson's Bay Company	79	8	15	6	9	3	22	80	38	
129	9,068	*Paul Jones	ditto	„	1849	Daniel Barker and others	260	5	36	3	25	5	1,325	2,060	448	iron, screw.
130	25,109	Adelaide	ditto	„	1852	C. R. Stock	123	5	13	5	6	6	44	77	32	
131	23,059	*Sylph	ditto	„	1844	Woolwich Steam Packet Company	103	4	16	7	10	3	53	76	70	
132	4,372	*Sir Walter Scott	ditto	„	1852	Caledonian Steam Towing Company	241	2	34	1	29	7	1,303	1,950	450	iron.
133	13,884	*Indus	ditto	„	1847	Peninsular and Oriental Company	295	9	38	2	25	4	1,176	2,185	464	iron, screw.
134	30,709	*Bengal	ditto	1853	1853	- - ditto	164	5	26	1	14	9	426	531	70	iron, screw.
135	26,494	*William Hutt	ditto	„	„	General Iron Screw Collier Company	260	6	36	3	25	7	1,130	1,878	450	iron, screw.
136	25,132	*Victoria	ditto	„	„	C. R. Stock	244	5	38	0	25	5	1,653	2,249	300	iron, screw.
137	11,379	Argo	ditto	„	„	T. Howard	174	0	24	7	17	4	396	616	200	
138	357	*Countess of Lonsdale	ditto	„	1836	General Steam Navigation Company	225	0	27	6	17	0	570	833	400	
139	25,157	Valetta	ditto	„	1853	Peninsular and Oriental Company	226	4	28	4	18	6	481	816	220	iron, screw.
140	31,155	*Cadiz	ditto	„	„	- - ditto	148	2	13	9	7	9	51	90	40	
141	23,069	Elfin	ditto	„	„	Woolwich Steam Packet Company	208	6	32	2	24	8	798	1,371	430	
142	11,390	*Clyde	ditto	„	1841	Royal Mail Packet Company	168	0	22	0	16	3	326	520	180	
143	183	*Hanover	ditto	„	„	General Steam Navigation Company	163	2	26	2	15	3	439	521	70	iron, screw.
144	2,535	*Northumberland	ditto	„	1853	General Iron Screw Collier Company	161	8	26	3	14	3	249	393	180	
145	3	Belgium	ditto	„	1850	General Steam Navigation Company	59	5	11	7	6	8	11	36	14	
146	9,069	*St. Michael	ditto	„	1838	Daniel Barker	144	6	19	4	13	7	215	289	60	iron, screw.
147	23,388	*Cornelia	ditto	„	1853	T. M. Weguelin and another	163	6	26	1	15	3	428	520	70	iron, screw.
148	11,968	*Sir John Easthope	ditto	„	„	General Iron Screw Collier Company	55	2	11	5	7	5	19	32	8	iron, screw.
149	16,379	*Dragon Fly	ditto	„	„	Joseph Maudslay	277	3	34	9	27	3	1,064	1,689	400	
150	13,833	*Solent	ditto	„	„	Royal Mail Packet Company	165	3	26	0	13	6	241	383	180	
151	155	*Holland	ditto	„	„	General Steam Navigation Company	156	2	19	7	14	5	296	427	120	
152	18,604	*Monarch	ditto	„	1830	Electric Telegraph Company	141	0	26	2	14	8	361	480	80	iron, screw.
153	9,134	*Caroline	ditto	„	1853	Thomas Jackson and others	242	4	28	4	18	7	613	970	230	iron, screw.
154	31,152	*Norna	ditto	„	„	Peninsular and Oriental Company	129	6	18	6	6	2	62	113	80	iron.
155	- -	*Anita	ditto	„	„	Magdalena Steam Navigation Company	172	0	17	5	10	3	173	238	100	iron.
156	929	*Sapphire	ditto	„	1842	General Steam Navigation Company	151	8	18	7	10	3	169	243	100	
157	926	*Ruby	ditto	„	1837	- - ditto	164	0	26	4	15	2	444	561	70	iron, screw.
158	26,489	Jarrow	ditto	„	1853	General Iron Screw Collier Company	156	0	20	4	10	6	121	194	120	iron.
159	17,304	Queen of the French	ditto	„	1845	South Eastern Railway Company	165	2	23	2	10	8	206	302	160	iron.
160	17,303	Princess Helena	ditto	„	1846	- - ditto	140	5	19	8	10	2	91	187	120	iron.
161	17,327	Princess Maud	ditto	„	1844	- - ditto	165	2	22	6	10	7	148	288	160	iron.
162	17,306	*Princess Clementine	ditto	„	1846	- - ditto	168	0	23	3	11	0	197	307	160	iron.
163	17,308	Lord Warden	ditto	„	1847	- - ditto	157	0	19	5	10	8	125	207	120	iron
164	16,709	*Queen of the Belgians	ditto	„	1844	- - ditto										

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. *10ths.*	*Feet.* *10ths.*	*Feet.* *10ths.*				
165	4,660	*Falcon	London - 1853	1853	J. V. Gooch	152 8	26 8	15 1	354	488	160	iron, screw.
166	23,053	*Petrel	ditto - „	„	Waterman's Steam Packet Company	138 4	15 0	7 8	87	115	50	iron.
167	18,220	*Halls	ditto - „	„	H. W. Schneider	72 2	13 9	7 7	18	52	26	
168	40,555	Wye	ditto - 1854	„	Royal Mail Packet Company	202 2	27 9	21 1	438	826	180	iron, screw.
169	12,980	*Magnet	ditto - „	1854	James Thomas	32 7	8 4	4 6	4	10	12	iron, screw.
170	25,221	*Marley Hill	ditto - „	1853	General Iron Screw Collier Company	164 3	26 5	15 0	399	509	90	iron, screw.
171	13,964	*Golden Fleece	ditto - „	1854	W. M. Holmes and another	280 0	42 3	33 0	2,091	2,768	300	iron, screw.
172	26,524	*Tonning	ditto - „	1853	J. Houch	224 4	27 4	19 1	735	987	14	iron.
173	4,279	*Don	ditto - „	1841	William Watkins	72 2	14 9	8 4	20	67	30	
174	13,926	Arrato	ditto - „	1853	Royal Mail Packet Company	326 6	40 9	33 6	1,970	3,126	750	iron.
175	23,249	*Caledonia	ditto - „	1838	Daniel Barker	84 2	15 8	9 2	42	95	—	
176	12,755	*Victoria	ditto - „	1853	William Watkins	116 0	17 1	10 8	51	147	180	
177	20,326	*Bishop	ditto - „	„	Corporation of Trinity House	69 —	14 0	8 6	27	66	30	
178	23,050	*Waterman (No. 2)	ditto - „	1844	Waterman's Steam Packet Company	118 3	14 2	7 1	62	85	36	iron.
179	23,052	*Waterman (No. 4)	ditto - „	„	- - ditto	115 5	13 7	7 0	54	77	32	iron.
180	23,054	*Sea Swallow	ditto - „	1854	- - ditto	153 7	15 6	7 6	96	128	60	iron.
181	23,051	*Waterman (No. 3)	ditto - „	1844	- - ditto	114 5	13 6	6 6	53	76	32	iron.
182	609	*Pioneer	ditto - „	1854	General Steam Navigation Company	169 5	24 2	15 6	392	413	70	iron, screw.
183	25,108	*Jason	ditto - „	„	East India and London Shipping Company	278 5	42 1	31 0	1,985	2,668	300	iron, screw.
184	13,952	*Simla	ditto - „	„	Peninsular and Oriental Company	330 4	37 9	27 0	1,178	2,441	640	iron, screw.
185	23,247	*Tynemouth	ditto - „	„	W. S. Lindsay and others	238 6	33 0	18 6	1,228	1,364	80	iron, screw.
186	26,377	*Sydney Hall	ditto - „	„	Peninsular and North African Steam Navigation Company.	169 5	23 2	17 8	422	548	70	iron, screw.
187	5,146	*Ross D. Mangles	ditto - „	„	General Iron Screw Collier Company	156 6	26 5	14 4	430	531	75	iron, screw.
188	25,113	Tamar	ditto - „	„	Royal Mail Packet Company	287 5	33 7	26 5	1,076	1,707	400	
189	39,836	*Prince	ditto - „	1850	- - ditto	159 2	23 5	12 0	300	398	200	iron.
190	- -	*Robert Bruce	ditto - „	1852	Thomas White & Company	71 3	13 6	7 6	18	51	—	
191	23,068	Oread	ditto - „	1854	Woolwich Steam Packet Company	151 5	14 9	7 2	71	103	50	
192	13,698	*Liffey	ditto - „	1852	Thames Steam Tug and Lighterage Company	78 2	14 3	6 7	25	62	40	
193	18,656	*Levant	ditto - „	1837	W. S. Andrews	169 5	23 9	17 6	395	695	300	
194	9,166	*Lion	ditto - „	1844	J. Jones & Co.	69 5	14 9	8 2	13	58	35	
195	25,118	*Nubia	ditto - „	1854	Peninsular and Oriental Company	289 3	38 0	27 4	1,033	2,096	450	iron, screw.
196	25	Dragon	ditto - „	„	General Steam Navigation Company	162 5	26 5	15 5	382	475	70	
197	9,086	*Rhenus	ditto - „	„	J. Scott Russell	189 0	22 4	9 0	194	365	200	iron.
198	30,031	*Fire Fly	ditto - „	„	General Iron Screw Collier Company	157 2	25 7	14 1	401	500	80	iron, screw.
199	355	Pilot	ditto - „	„	General Steam Navigation Company	180 8	26 9	14 7	319	449	80	iron, screw.
200	950	*Orion	ditto - „	1841	Eastern Counties Railway Company	160 1	21 5	9 6	133	226	120	iron.
201	9,983	*Champion	ditto - „	1846	John Newby and others	77 8	15 2	9 0	23	75	40	

204	25,152	Parana	ditto	„	1851	Royal Mail Packet Company	165	0	20	1	9	2	132	210	120	iron.
205	19,002	Paris	ditto	„	1852	H. P. Maples	74	0	15	1	8	7	29	74	25	
206	12,781	*Contractor	ditto	„	1851	W. J. Thomas and others	144	0	21	0	10	2	143	227	150	iron.
207	19,003	Duntroon Castle	ditto	„	1842	T. Chilton, junior, and another	208	5	26	5	22	8	669	985	120	iron, screw.
208	285	*Gibraltar	ditto	„	1854	Western Wood	74	0	15	5	8	9	30	79	63	
209	9,123	*Vanguard	ditto	„	1841	Mace & Brooks	99	5	18	7	10	0	58	139	70	iron.
210	32,221	*Tamar	ditto	„	1854	Edward Barnard	296	6	36	2	27	1	1,207	1,916	400	iron.
211	13,971	Tyne	ditto	„	„	Royal Mail Packet Company	94	5	17	0	10	4	65	130	—	
212	15,670	*Secret	ditto	„	1850	R. D. Ross and another	155	4	21	3	12	7	245	322	50	iron, screw.
213	191	*Retriever	ditto	„	1854	African Steam Ship Company	150	8	23	3	11	9	196	321	80	iron, screw.
214	31,753	*Burra Burra	ditto	1855	„	John Gladstone and another	177	5	19	3	9	5½	136	212	120	iron.
215	19,001	*Rouen	ditto	„	1853	H. P. Maples	167	7	26	3	15	6	480	607	200	iron, screw.
216	4,620	*Amity	ditto	„	1854	Charles Capper	159	4	26	6	14	5	441	568	70	iron, screw.
217	26,251	*Chester	ditto	„	„	General Iron Screw Collier Company	152	0	27	0	14	9	386	482	80	iron, screw.
218	4,264	*Imperial	ditto	„	„	Robert Ford	235	4	30	8	23	1	449	1,055	300	iron, screw.
219	—	*Lancefield	ditto	„	1855	Robert Jardine	167	0	26	8	15	8	331	487	140	iron, screw.
220	7,354	Wearmouth	ditto	„	„	George Elliott	122	6	13	6	6	9	64	87	32	iron.
221	21,176	*Waterman (No. 10)	ditto	„	1844	Waterman's Steam Packet Company	158	2 in.	25	11 in.	15	11 in.	288	—	224	
222	17,704	*Jupiter	ditto	„	1835	Henry Castle	231	0	32	0	17	8	808	1,125	200	iron, screw.
223	13,990	*Sultan	ditto	„	1847	Peninsular and Oriental Company	122	5	27	0	15	0	262	393	70	iron, screw.
224	78	*Lady Berriedale	ditto	„	1852	J. Ricketts and others	195	5	26	5	15	0	433	560	140	iron, screw.
225	469	*Derwent	ditto	„	1855	General Iron Screw Collier Company	145	2½ in.	23	10 in.	14	10 in.	231	—	150	
226	54	*Newcastle	ditto	„	1834	North of Europe Steam Navigation Company	144	3	24	4	14	4	291	370	60	iron, screw.
227	599	*Janet Croll	ditto	„	1855	Barrett & Robson	235	8	31	1	23	2	444	1,059	300	iron, screw.
228	723	*Fiery Cross	ditto	„	„	Robert Jardine	181	5	19	8	10	7	170	270	150	iron.
229	23,056	Dieppe	ditto	„	„	H. P. Maples	107	0	13	9	7	1	50	80	32	iron.
230	23,106	Waterman (No. 1)	ditto	„	1843	Waterman's Steam Packet Company	110	0	13	9	7	2	53	84	32	iron.
231	23,107	Waterman (No. 5)	ditto	„	1842	- - ditto	109	0	13	3	6	6	50	79	32	iron.
232	23,108	Waterman (No. 7)	ditto	„	1840	- - ditto	109	0	14	1	7	3	52	82	32	iron.
233	23,110	Waterman (No. 11)	ditto	„	„	- - ditto	118	0	14	4	7	1	57	90	32	iron.
234	23,111	Waterman (No. 12)	ditto	„	1844	- - ditto	75	9	17	0	8	7	22	82	40	
235	23,363	Robert Burns	ditto	„	1855	Edward Lawson and others	179	3	28	2	16	4	400	588	70	iron, screw.
236	24,519	Black Diamond	ditto	„	„	C. R. Fenwick and others	89	2	18	0	9	9	16	112	50	
237	24,691	Aid	ditto	„	„	Royal Harbour of Rumsgate Trust	209	3	27	1	16	3	373	642	140	iron, screw.
238	24,758	Alhambra	ditto	„	„	Peninsular and Oriental Company	81	2	16	5	9	1	55	101	50	iron.
239	24,820	George Rennie	ditto	„	„	Edward Barnard	128	9	20	0	8	1	130	180	50	iron.
240	24,885	Sir Walter Raleigh	ditto	„	„	W. S. Andrews	86	0	13	3	6	1	42	59	14	iron.
241	26,426	Pink	ditto	„	1843	C. W. Christie and another	101	1	13	7	5	6	45	72	48	iron.
242	26,428	London Pride	ditto	„	1847	- - ditto	100	0	13	0	6	5	44	70	24	iron.
243	26,429	Sunflower	ditto	„	„	- - ditto	92	3	12	9	6	0	42	59	14	iron.
244	26,430	Forget-me-not	ditto	„	1848	George Dixon and another	115	6	18	5	10	0	90	143	90	iron.
245	25,874	Covenanter	ditto	„	1846	G. C. Frangluadi	169	8	23	5	13	3	197	313	160	iron.
246	26,651	Vestal	ditto	„	1855	Corporation of Trinity House	237	6	35	8	21	4	1,071	1,699	450	
247	13,991	Dee	ditto	„	1841	Royal Mail Packet Company	179	9	28	2	16	4	399	588	70	iron, screw.
248	4,269	Vedra	ditto	„	1855	C. R. Fenwick and others	193	6	25	1	13	3	371	593	240	iron.
249	4,610	Malakhoff	ditto	„	1851	Robert Ford and another	303	5	42	1	27	1	1,261	2,014	450	iron, screw.
250	4,634	Pera	ditto	„	1855	Peninsular and Oriental Company	191	7	25	3	8	6	214	340	150	iron.
251	4,650	Kœnig Max	ditto	„	„	J. Scott Russell										

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
252	4,693	Sardinian - -	London - 1855	1855	Hugh Taylor and others - - - -	169 5	26 4	15 9	420	520	70	iron, screw.
253	26,901	Hutton Chaytor -	ditto - „	„	General Iron Screw Collier Company - -	170 0	26 0	15 0	424	529	70	iron, screw.
254	6,131	Berwick - - -	ditto - „	„	G. Elliott - - - - - - - -	183 3	27 1	15 9	365	537	80	iron, screw.
255	6,148	Susannah - -	ditto - „	1832	East India Dock Company - - - -	55 4	12 8	6 4	21	32	15	
256	4,358	Dolphin - - -	ditto - „	1855	General Steam Navigation Company - -	197 0	28 2	16 3	394	626	100	iron.
257	9,075	Meriel - - -	ditto - „	„	Hans Busk - - - - - - -	151 6	15 1	7 2	104	136	60	iron.
258	12,765	Vulture - - -	ditto - 1856	„	J. V. Gooch and others - - - -	176 8	27 5	15 7	345	507	75	iron, screw.
259	12,779	Citizen (N.) - -	ditto - „	1847	City Steam Boat Company - - - -	101 0	11 9	6 3	44	62	24	iron.
260	12,780	Citizen (O.) - -	ditto - „	1855	- - ditto - - - - - - -	88 5	12 7	6 2	36	57	24	iron.
261	12,777	El Patrono - -	ditto - „	„	W. H. Goschen and another - - -	205 9	21 1	6 5	127	201	60	iron.
262	13,672	Leo - - -	ditto - „	1847	General Steam Navigation Company - -	206 2	25 4	11 5	359	570	220	iron.
263	13,687	Charm - - -	ditto - „	1855	James Holland and others - - - -	84 9	16 6	8 8	58	93	50	
264	13,748	Britannia - -	ditto - „	„	John Brodie and others - - - -	91 4	18 4	10 3	42	97	60	iron.
265	13,763	Britannia - -	ditto - „	1856	Western Wood - - - - - -	195 0	28 4	22 0	623	917	130	iron, screw.
266	14,741	Victoria Dock - -	ditto - „	„	William Smith - - - - - -	103 5	18 8	10 4	61	119	70	iron.
267	15,071	Jackall -	ditto - „	„	James Thomas - - - - - -	54 6	11 1	5 8	7	22	15	iron, screw.
268	23,427	Eagle - - -	ditto - „	1853	General Steam Navigation Company - -	200 0	24 1	11 3	205	325	130	iron.
269	26,445	Citizen (M.) - -	ditto - „	1847	City Steam Boat Company - - - -	105 0	13 5	6 5	55	75	24	iron.
270	16,357	Undine - - -	ditto - „	1856	Duke of Sutherland - - - - -	123 1	25 0	11 1	106	178	–	iron, screw.
271	16,394	Insolent - - -	ditto - „	„	Board of Trade - - - - - -	106 5	22 1	7 5	115	174	60	screw.
272	16,379	Aden - - -	ditto - „	„	Peninsular and Oriental Company - -	225 6	29 5	18 6	507	812	210	iron, screw.
273	16,954	Defiance - - -	ditto - „	„	Peter Tindall and others - - - -	81 0	17 7	9 0	37	83	40	iron.
274	16,956	Empress - - -	ditto - „	1841	Charles Lungley - - - - -	146 5	19 3	8 7	126	199	90	iron.
275	16,959	Toby - - -	ditto - „	1855	William Watkins - - - - -	80 1	17 0	8 7	9	73	40	iron.
276	16,958	Germania - -	ditto - „	1856	General Steam Navigation Company - -	208 1	28 8	16 4	429	630	100	iron, screw.
277	16,983	Canning - - -	ditto - „	„	D. M'Leod Gordon - - - - -	145 5	23 1	14 3	107	326	160	iron.
278	16,991	Lyons - - -	ditto - „	„	H. P. Maples - - - - - -	189 2	21 8	9 9	139	269	160	iron.
279	16,992	Orleans - - -	ditto - „	„	- - ditto - - - - - - -	187 2	21 6	9 9	138	270	160	iron.
280	7,509	Azof - - -	ditto - „	1855	Peninsular and Oriental Company - -	214 1	27 6	18 6	476	700	180	iron, screw.
281	17,494	Scotland - - -	ditto - „	1856	W. S. Lindsay and others - - - -	210 7	32 9	19 8	759	965	150	iron, screw.
282	17,498	Blue Bell - - -	ditto - „	1844	London and Westminster Steam Boat Company.	96 5	13 3	6 0	41	66	24	iron.
283	17,499	Lotus - - -	ditto - „	1856	- - ditto - - - - - - - -	105 2	14 2	6 4	41	65	24	iron.
284	17,548	Water Sprite - -	ditto - „	1845	J. R. Greig - - - - - - -	90 2	12 1	6 5	13	45	24	iron.
285	17,558	George Robert - -	ditto - „	1856	G. P. Bidder - - - - - - -	90 8	16 8	8 3	35	76	40	iron, screw.
286	5,462	Baltic - - -	ditto - „	1854	Calcutta and Burmah Steam Navigation Company.	185 2	26 4	14 4	338	497	100	iron, screw.
287	23,176	Ethiope - - -	ditto - „	„	African Steam Ship Company - - -	211 6	25 7	20 3	469	690	160	iron, screw.
288	8,293	Triumph - - -	ditto - „	1856	R. D. Ross and another - - - -	89 8	16 9	9 0	19	81	80	

291	17,036	Express	ditto	„	1856	E. Gregory and others	88	9	18	6	10	1	38	94	50	iron.
292	10,160	Wonder	ditto	1857	„	W. J. Thomas and others	87	5	17	1	8	7	23	82	36	
293	770	Jupiter	ditto	„	1849	J. G. Churchward	165	5	18	3	8	8	92	145	80	iron.
294	11,396	Challenge	ditto	„	1856	James Deane	84	6	16	6	8	9	25	78	40	
295	12,887	Demetrius	ditto	„	„	Michael Spartali	185	6	26	1	14	6	418	527	70	iron, screw.
296	12,587	Victoria	ditto	„	„	Thames Steam Tug and Lighterage Company	92	3	16	1	7	6	59	86	24	iron, screw.
297	12,586	Albert	ditto	„	„	- - ditto	92	3	16	1	7	6	59	86	24	iron, screw.
298	11,922	River Queen	ditto	„	„	Richard Cattarns	112	1	13	9	6	3	44	71	24	iron.
299	12,589	Argus	ditto	„	„	Corporation of Trinity House	172	5	23	9	13	3	208	331	160	iron.
300	18,289	Bruiser	ditto	„	1854	General Steam Navigation Company	189	4	25	5	14	7	344	506	80	iron, screw.
301	12,874	Antagonist	ditto	„	1857	James Archbell and another	83	3	17	0	8	8	21	80	50	iron.
302	11,089	Oracle	ditto	„	„	David Oates	83	2	17	2	8	8	22	81	50	iron.
303	15,352	Energy	ditto	„	1856	William Fletcher and others	95	7	19	4	10	5	30	115	60	
304	18,622	Leipzig	ditto	„	1857	Z. C. Pearson	179	5	26	4	16	3	379	601	250	iron.
305	14,947	Mary Stuart	ditto	„	„	D. M'Leod Gordon	144	2	23	1	14	3	112	330	172	iron.
306	15,595	Solva	ditto	„	„	Corporation of Trinity House	90	2	18	2	9	3	23	94	50	
307	15,598	William Swann	ditto	„	„	Thames Steam Tug and Lighterage Company	98	6	13	5	6	9	28	68	50	iron.
308	18,053	Lass o'Gowrie	ditto	„	1856	J. F. Martin and others	79	6	16	7	9	0	12	66	27	
309	6,336	Stella	ditto	„	„	Jonathan Elkin and others	88	8	17	4	9	3	21	61	50	
310	17,338	Daring	ditto	„	1857	William Roxberry and others	87	9	17	6	8	8	23	94	50	iron.
311	19,100	Blackwall	ditto	„	„	Thames Steam Tug and Lighterage Company	98	7	13	5	6	8	27	40	50	iron.
312	13,630	Alice	ditto	„	1846	Jonathan Elkin and others	74	0	14	7	8	5	15	60	30	
313	519	Alar	ditto	„	1847	H. P. Maples	138	0	17	8	9	1	66	150	80	iron, screw.
314	674	Candia	ditto	„	1854	Peninsular and Oriental Company	-	-	-	-	-	-	1,348	1,982	450	iron, screw.
315	18,730	William Cory	ditto	„	1857	Hugh Taylor and others	244	6	35	2	17	8	919	1,168	120	iron, screw.
316	19,598	Black Boy	ditto	„	„	Curtis & Co.	81	5	15	0	7	9	45	66	15	iron, screw.
317	19,600	Prince Frederick William.	ditto	„	„	J. G. Churchward	170	6	19	9	10	4	100	215	120	iron.
318	26,453	Times	ditto	„	1846	J. T. Van Oppen	143	5	21	0	10	2	124	183	60	iron, screw.
319	1,977	Propeller	ditto	„	„	H. N. Penrice	66	8	9	8	5	4	16	31	16	experimental propeller.
320	19,885	Napoleon	ditto	„	1857	William Watkins	120	8	20	4	11	3	29	157	—	
321	19,887	Times	ditto	„	„	- - ditto	81	3	18	8	9	0	11	80	50	
322	19,890	Ranger	ditto	„	„	J. D. & R. Mitchell	92	3	18	8	9	8	17	98	40	
323	20,187	Granada	ditto	„	„	Peninsular and Oriental Company	186	3	26	8	16	7	381	561	160	iron, screw.
324	20,390	Norseman	ditto	„	„	Arthur Anderson	122	7	18	4	9	1	49	101	40	iron, screw.
325	20,475	Airedale	ditto	„	„	Inter-Colonial Royal Mail Packet Company	169	3	23	0	13	6	286	363	60	iron, screw.
326	23,478	Nemesis	ditto	„	„	Peninsular and Oriental Company	301	0	41	3	19	5	1,143	2,018	600	iron, screw.
327	20,067	Ariel	ditto	„	1844	Woolwich Steam Packet Company	125	1	14	4	7	4	56	89	40	
328	20,586	Wellington	ditto	„	1857	Daniel Barker and others	105	8	20	1	10	8	24	130	70	
329	3,270	Armenian	ditto	1858	1855	African Steam Ship Company	243	3	30	5	20	5	662	974	200	
330	20,594	Sunbeam	ditto	„	1857	Macgregor Laird	133	6	25	0	9	0	205	225	45	iron, screw.
331	20,841	Germania	ditto	„	1840	Israel Marks	205	0	37	4	28	6	882	1,400	420	
332	20,842	James II.	ditto	„	1858	J. Scott Russell	204	4	25	1	13	1	285	452	160	iron.
333	5,375	Lady Seale	ditto	„	1846	Whale and Seal Fishing Company	122	4	22	9	13	1	163	240	50	screw.
334	26,427	Dahlia	ditto	„	1845	London and Westminster Steam Boat Company.	102	6	13	2	6	0	45	72	24	iron.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
335	2,089	Euclid	London - 1858	1855	John Cook and others	73 6	15 7	8 2	22	62	25	
336	16,150	Alliance	ditto - „	1856	- - ditto	81 2	16 4	8 3	15	66	30	
337	594	Saxon	ditto - „	1854	M. F. Bremer	167 0	24 6	15 6	335	395	40	iron, screw.
338	21,166	Powerful	ditto - „	1857	W. J. Thomas and others	88 0	17 5	8 8	23	88	40	
339	19,872	Bulldog	ditto - „	„	Henry Hindmarsh and others	75 3	15 4	8 6	12	54	28	
340	21,173	Ella Constance	ditto - „	1858	Edward Corry and others	122 0	26 3	15 5	423	535	80	iron, screw.
341	21,175	Benares	ditto - „	„	Peninsular and Oriental Company	293 7	38 5	15 4	966	1,491	400	iron, screw.
342	21,179	Burmah	ditto - „	„	Calcutta and Burmah Steam Navigation Company.	229 5	29 2	16 3	535	787	160	iron, screw.
343	21,393	Racer	ditto - „	1857	D. H. Young	44 1	8 8	8 9	11	17	26	iron, screw.
344	21,394	Plover	ditto - „	1858	Waterman's Steam Packet Company	125 9	14 2	6 5	39	63	32	iron.
345	16,788	Wansbeck	ditto - „	1857	General Steam Navigation Company	184 1	27 5	16 2	406	597	86	iron, screw.
346	16,872	Athenian	ditto - „	1854	African Steam Navigation Company	243 0	31 0	21 2	650	1,057	200	iron, screw.
347	11,872	Orwell	ditto - „	1839	Z. C. Pearson	148 6	22 2	9 5	91	180	80	iron.
348	21,578	Salsette	ditto - „	1858	Peninsular and Oriental Company	293 8	38 5	15 4	965	1,491	400	iron, screw.
349	21,580	Indian Empire	ditto - „	„	T. F. Barlow	249 5	39 5	30 4	1,387	2,201	750	
350	21,581	Camellia	ditto - „	„	London and Westminster Steam Boat Company.	108 8	14 2	6 3	41	66	32	
351	21,583	Lucy	ditto - „	„	G. Collen	71 3	16 3	8 0	30	68	30	iron.
352	21,586	Queen Esther	ditto - „	„	G. Ford	69 0	15 6	6 9	50	63	16	iron, screw.
353	21,589	Nelson	ditto - „	„	Daniel Barker	99 0	18 0	8 7	22	88	40	
354	5,305	Courier	ditto - „	1850	Thomas Jackson and another	178 6	27 4	12 1	279	374	135	iron.
355	21,591	Prince Alfred	ditto - „	1854	Inter-Colonial Mail Packet Company	205 7	30 6	15 6	704	882	180	iron, screw.
356	21,595	Northam	ditto - „	1858	Peninsular and Oriental Company	274 0	34 7	14 9	905	1,330	400	iron, screw.
357	21,597	Jupiter	ditto - „	1857	Thames Steam Tug and Lighterage Company	111 6	12 2	6 3	27	43	30	iron.
358	21,600	Sir William Peel	ditto - „	1854	John Silva	247 6	35 1	27 5	1,044	1,536	300	screw.
359	21,890	Mazagon	ditto - „	1858	Peninsular and Oriental Company	97 0	17 1	7 5	54	86	45	iron.
360	21,894	Rainbow	ditto - „	„	Archibald Hamilton	130 0	16 3	6 9	79	111	60	steel.
361	21,893	Tasmanian	ditto - „	„	Royal Mail Packet Company	346 0	39 2	20 1	1,275	2,253	550	iron, screw.
362	16,161	Isabella	ditto - „	1856	George Smith	76 2	15 5	8 6	9	58	30	
363	15,690	Prince Albert	ditto - „	1842	John Broughton	154 4	19 6	9 2	116	171	21	iron, screw.
364	22,164	Connector	ditto - „	1858	Jointed Ship Company	109 3	18 1	5 0	30	36	10	iron, screw.
365	7,416	Oneida	ditto - „	1855	Royal Mail Packet Company	306 8	38 9	19 2	1,372	2,285	530	iron, screw.
366	22,170	Resolute	ditto - „	1858	James Dean and others	102 3	18 7	10 0	38	121	60	
367	20,592	Long Ditton	ditto - „	1857	Jackson and Ford	68 2	11 7	7 0	14	33	15	screw.
368	22,171	Malta	ditto - „	1848	Peninsular and Oriental Company	285 8	39 0	20 8	940	1,943	500	iron, screw.
369	22,173	Ceylon	ditto - „	1858	- - ditto	306 1	40 9	17 8	1,374	2,021	450	iron, screw.
370	22,174	Labouchere	ditto - „	„	Hudson's Bay Company	185 4	26 1	14 9	320	507	160	
371	25,163	Bobolina	ditto - „	„	Stefanos Xenos	122 1	23 8	8 4	152	192	25	iron, screw.

372	25,166	Mars Bozzaris	London	1858	1858	Stefanos Xenos	199	5	28	1	10	6	449	660	110	iron, screw.
373	18,192	Christina	ditto	„	1857	Michael Spartali	212	2	29	4	16	7	693	1,019	110	iron, screw.
374	25,171	Cologne	ditto	„	1858	General Steam Navigation Company	190	3	25	6	13	7	325	435	136	iron.
375	25,174	Amazon	ditto	„	„	Peninsular and North American Steam Navigation Company.	176	8	27	3	15	4	429	517	80	iron, screw.
376	26,897	Pioneer	ditto	„	„	John Borradaile	149	4	25	2	7	3	193	247	70	iron.
377	4,373	Cock o' the North	ditto	„	1852	M. J. Wilson	96	2	20	8	10	2	63	140	120	
378	26,993	Queen	ditto	„	1858	D. Barker and others	101	3	18	2	8	9	20	88	44	
379	26,995	Behar	ditto	„	1855	Peninsular and Oriental Company	265	0	36	1	25	5	1,090	1,603	300	iron, screw.
380	25,117	Union	ditto	„	1854	- - ditto	163	7	22	7	13	7	201	310	40	iron, screw.
381	26,996	Orissa	ditto	„	1856	- - ditto	264	6	35	9	26	6	1,120	1,647	300	iron, screw.
382	12,756	Punch	ditto	1859	1854	William Watkins and others	101	7	18	1	9	9	31	115	60	iron.
383	27,250	Nepaul	ditto	„	1858	Peninsular and Oriental Company	244	0	29	7	18	0	541	796	200	iron, screw.
384	9,490	Eider	ditto	„	1856	John Smurthwaite	123	2	20	3	9	8	123	181	40	iron, screw.
385	21,368	Admiral Kanaris	ditto	„	1858	Z. C. Pearson	195	4	34	4	18	7	764	928	90	iron, screw.
386	27,194	Cockerell	ditto	„	1859	Richard Cory	59	8	12	2	5	6	19	28	12	iron, screw.
387	27,200	Ellora	ditto	„	1855	Peninsular and Oriental Company	261	2	36	2	25	8	1,093	1,607	350	iron, screw.
388	10,483	Cleopatra	ditto	„	1852	African Steam Ship Company	219	0	32	2	18	3	870	1,280	250	iron, screw.
389	27,207	Jeddo	ditto	„	1859	Peninsular and Oriental Company	277	3	35	8	16	2	1,110	1,632	450	iron, screw.
390	27,209	Tzamados	ditto	„	„	Stefanos Xenos	154	9	22	2	9	9	231	283	40	iron, screw.
391	27,208	Botassis	ditto	„	„	- ditto	155	2	22	1	9	9	228	286	40	iron, screw.
392	27,211	Conservator	ditto	„	1858	Thames Conservancy	112	2	14	1	6	5	37	59	24	iron.
393	27,214	St. Michael	ditto	„	1859	Daniel Barker and another	63	2	13	4	6	9	6	32	18	
394	27,216	Enterprise	ditto	„	„	William Roxberry and others	114	8	19	2	9	9	55	147	70	iron.
395	27,224	Mersey	ditto	„	„	Royal Mail Packet Company	260	4	30	2	16	5	730	1,061	250	iron.
396	27,225	Doris	ditto	„	„	Woolwich Steam Packet Company	130	4	15	7	6	6	49	78	40	
397	27,228	Pilot	ditto	„	1858	Richard Davis and another	85	4	16	2	8	5	18	71	30	
398	25,663	Emeu	ditto	„	1854	Peninsular and Oriental Company	266	3	36	6	19	3	908	1,538	300	iron, screw.
399	25,124	Colombo	ditto	„	1853	- - ditto	317	4	37	6	18	2	1,447	2,127	450	iron, screw.
400	20,778	Asia	ditto	„	1859	Stefanos Xenos	226	0	32	9	20	2	923	1,093	120	iron, screw.
401	9,965	Robert Lowe	ditto	„	1854	W. S. Lindsay and another	247	0	35	2	18	7	1,278	1,475	80	iron, screw.
402	27,239	Long Ditton	ditto	„	1859	R. M. Philipps & Co.	54	6	11	0	6	1	14	20	20	screw.
403	934	Samuel Laing	ditto	„	1854	Hugh Taylor and others	190	2	26	8	15	6	472	606	70	iron, screw.
404	27,241	Hope	ditto	„	1859	James Letten and others	89	3	17	4	9	0	19	90	50	iron.
405	22,037	Uncle Sam	ditto	„	1849	W. and J. Watkins	107	0	20	3	10	9	77	159	80	
406	22,036	John Bull	ditto	„	„	- - ditto	96	0	18	2	9	7	50	115	60	
407	20,546	Victor	ditto	„	1857	- - ditto	136	3	20	2	11	8	78	219	100	iron.
408	19,362	Scotia	ditto	„	„	Stefanos Xenos	241	2	32	4	20	6	1,021	1,196	120	iron, screw.
409	3,570	Champion	ditto	„	1854	T. B. Morton	149	2	23	0	12	4	196	289	70	screw.
410	27,780	Milford Haven	ditto	„	1859	J. S. Russell and another	71	0	15	1	6	1	18	36	25	iron, screw.
411	27,781	Nelly	ditto	„	„	Henry Lee and Son	91	8	18	2	9	6	39	116	55	
412	27,784	Shannon	ditto	„	„	Royal Mail Packet Company	330	4	44	5	26	2	2,187	3,472	800	iron.
413	25,135	Vectis	ditto	„	1853	Peninsular and Oriental Company	229	5	30	4	16	9	473	751	260	
414	27,792	Euphrosyne	ditto	„	1859	R. S. Walker and others	219	6	28	4	22	9	820	999	120	iron, screw.
415	27,906	Modern Greece	ditto	„	„	Z. C. Pearson	224	0	29	3	17	0	512	754	120	iron, screw.
416	27,997	Chevy Chase	ditto	„	„	Alexander Perceval	247	2	28	6	16	1	424	810	400	iron.
417	27,174	Cosmopolitan	ditto	„	1852	General Steam Navigation Company	192	6	27	3	15	7	303	502	140	iron, screw.
418	4,687	Metropolitan	ditto	„	1853	- - ditto	196	8	27	6	16	3	308	521	140	iron, screw.
419	27,912	James Dixon	ditto	„	1859	William Corry, jun., and others	235	8	32	7	17	2	838	1,053	120	iron, screw.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
420	27,916	Delta	London - 1859	1859	Peninsular and Oriental Company	324 3	35 3	22 1	1,020	1,618	400	iron.
421	27,919	Cronstadt	ditto - „	„	Z. C. Pearson	121 9	21 1	10 3	114	182	100	iron.
422	27,924	Smyrna	ditto - „	„	- - ditto	152 2	24 2	11 9	219	323	50	iron, screw.
423	27,917	Cadiz	ditto - „	1858	Western Wood	196 7	30 1	18 2	602	761	90	iron, screw.
424	28,061	Patras	ditto - „	1859	Z. C. Pearson	152 8	20 4	12 2½	179	264	60	iron, screw.
425	28,062	Alarm	ditto - „	„	Henry Hindmarsh and another	83 3	18 0	9 5	11	81	50	
426	28,064	Scotia	ditto - „	„	Richard Green	124 8	20 1	11 8	68	178	100	
427	28,072	Merry Andrew	ditto - „	1857	T. E. Smith	120 9	20 3	10 3	17	178	80	iron.
428	27,199	China	ditto - „	1855	Peninsular and Oriental Company	279 0	36 4	22 9	1,367	2,010	400	iron, screw.
429	15,381	Beirout	ditto - „	1856	A. Littlewood	174 0	25 9	15 3	389	497	70	iron, screw.
430	20,840	Little Eastern	ditto - „	1858	Samuel Williams	62 9	11 5	6 0	12	26	10	iron, screw.
431	7,459	Columbian	ditto - „	1855	Peninsular and Oriental Company	307 4	38 4	25 7	1,436	2,112	520	iron, screw.
432	28,084	Assam Nautilus	ditto - „	1859	Andrew Henderson	85 6	12 8	6 4	34	54	20	iron.
433	28,086	El Hamy Pacha	ditto - „	„	J. Scott Russell	76 1	10 8	6 4	20	30	30	iron, screw.
434	21,891	Great Eastern	ditto - „	1858	Great Ship Company	679 6	82 8	31 6	13,344	18,915	2,600	iron, screw, & paddle.
435	28,088	Colletis	ditto - „	1856	Stefanos Xenos	159 4	23 2	13 0	216	318	60	iron, screw.
436	28,096	Stella	ditto - 1860	1860	A. G. Robinson	220 9	26 2	17 0	600	746	100	iron, screw.
437	28,098	Fairy	ditto - „	1859	Woolwich Steam Packet Company	125 6	15 2	6 6	47	74	32	
438	28,351	Petro Beys	ditto - „	1860	Z. C. Pearson	203 3	26 2	13 5	382	562	90	iron, screw.
439	28,352	Prince	ditto - „	1859	Daniel Barker and others	90 3	18 5	9 0	37	89	52	
440	28,354	John Penn	ditto - „	„	J. G. Churchward	183 2	19 9	10 5	97	203	150	iron.
441	28,362	Saxonia	ditto - „	1856	General Steam Navigation Company	162 4	24 3	13 1	243	358	80	iron, screw.
442	28,366	Alacrity	ditto - „	1859	Richard Cory	54 1	9 8	6 7	11	17	16	iron, screw.
443	24,638	Peninsula	ditto - „	1853	Western Wood	193 0	25 2	14 5	350	514	80	iron, screw.
444	17,309	Princess Mary	ditto - „	1844	South Eastern Railway Company	148 0	20 7	9 8	109	174	120	iron.
445	28,375	Boreas	ditto - „	1856	General Steam Navigation Company	174 5	24 3	13 6	280	412	80	iron, screw.
446	28,374	Massilia	ditto - „	1860	Peninsular and Oriental Company	309 9	36 1	22 3	1,033	1,640	400	iron.
447	28,378	Zaïmes	ditto - „	„	Stefanos Xenos	155 7	22 6	9 8	180	265	45	iron, screw.
448	17,495	City of Nantes	ditto - „	1856	Alfred Wilson and others	151 6	23 4	12 1	205	301	60	
449	28,383	Telegraph	ditto - „	1859	T. G. Sandford and others	82 0	17 1	8 3	14	74	32	iron.
450	3,062	Albion	ditto - „	1844	James Reid and others	151 0	22 1	10 4	137	259	150	iron.
451	28,390	Victoria	ditto - „	1860	L. H. Hazlewood and another	114 9	13 9	6 5	40	64	20	iron.
452	28,394	George Olympius	ditto - „	„	Stefanos Xenos	155 7	22 7	9 8	226	280	45	iron, screw.
453	28,396	Rokeby	ditto - „	1859	R. S. Walker	158 4	22 1	13 2	218	321	60	iron, screw.
454	28,736	Seine	ditto - „	„	Royal Mail Packet Company	331 6	44 1	33 9	2,167	3,440	800	iron.
455	28,743	Mavrocordatos	ditto - „	1860	Stefanos Xenos	232 8	33 4	19 5	929	1,167	200	iron, screw
456	28,745	Londos	ditto - „	„	- - ditto	159 2	22 7	9 8	229	286	45	iron, screw.
457	10,162	Esther	ditto - „	1835	C. J. Mills	55 4	13 5	7 2	9	34	15	

459	20,452	Rover - - -	ditto - „	1857	Atlantic Royal Mail Steam Navigation Company.	132	3	20	6	10	2	69	187	80	iron.
460	26,405	East Anglian - -	ditto - „	1854	John Johnson - - - - - -	180	8	24	2	13	4	268	395	70	iron, screw.
461	28,850	Leopard - - -	ditto - „	1855	General Steam Navigation Company - -	172	1	24	0	13	5	254	374	80	iron, screw.
462	28,852	Colocotronis - -	ditto - „	1860	Stefanos Xenos - - - - - -	172	0	22	3	9	5	235	287	60	iron, screw.
463	20,481	Artizan - - -	ditto - „	1857	G. K. Stothert and others - - - -	200	1	25	5	15	5	370	544	100	iron, screw.
464	28,856	Lord Byron - -	ditto - „	1860	Z. C. Pearson - - - - - -	202	8	26	0	16	–	426	627	100	iron, screw.
465	28,859	Regas Ferreos - -	ditto - „	„	- - ditto - - - - - -	172	0	22	3	9	5	235	288	60	iron, screw.
466	28,861	Ryhope - - -	ditto - „	„	Hugh Taylor and others - - - -	197	2	28	2	16	8	475	698	90	iron, screw.
467	28,864	Gratitude - -	ditto - „	„	T. J. Walter - - - - - -	78	2	16	5	8	8	14	69	36	
468	28,865	Telegraph - -	ditto - „	„	Red Sea and India Telegraph Company -	129	2	17	0	11	2	89	131	40	iron, screw.
469	28,867	Rangoon - - -	ditto - „	„	Calcutta and Burmah Steam Navigation Company.	204	6	27	3	14	8	354	549	120	iron, screw.
470	29,001	Melazzo - - -	ditto - „	„	T. P. Smith - - - - - -	154	5	23	0	12	1	221	325	60	iron, screw.
471	7,629	Liberty - - -	ditto - „	1843	Richard Davis and another - - - -	60	5	14	3	6	9	11	34	16	
472	29,018	Gladiator - -	ditto - „	1860	Peninsular and North African Steam Navigation Company.	192	8	27	8	15	7	467	592	80	iron, screw.
473	29,020	Penelope - -	ditto - „	„	E. W. Edwards - - - - - -	79	5	12	9	5	7	27	40	25	iron, screw.
474	29,027	Contest - - -	ditto - „	„	John Cook and others - - - -	89	0	17	5	8	8	23	87	38	iron.
475	29,029	Henry Morton -	ditto - „	„	Richard Cory - - - - - -	229	3	32	2	17	5	808	986	90	iron, screw.
476	7,521	Rothesay Castle -	ditto - „	1854	Oriental Inland Steam Company - - -	185	0	18	4	7	8	84	171	100	iron.
477	27,037	Rifle - - -	ditto - „	1860	- - ditto - - - - - -	97	2	17	8	9	5	23	98	40	
478	29,368	Lubra - - -	ditto - 1861	„	Alexander Lang and others - - - -	147	0	22	2	10	5	167	246	50	iron.
479	29,369	Thule - - -	ditto - „	„	Arthur Anderson - - - - -	144	9	23	0	12	0	135	216	80	iron, screw.
480	20,191	Prince Albert - -	ditto - „	1857	Atlantic Royal Mail Steam Navigation Company.	274	0	38	0	27	0	1,463	2,151	400	iron, screw.
481	1,159	Antelope - -	ditto - „	1846	- - ditto - - - - - -	236	9	26	2	-	-	612	901	150	iron, screw.
482	29,372	Ranee - - -	ditto - „	1859	R. F. Fairlie - - - - - -	43	0	7	7	5	4	6	10	6	iron, screw.
483	21,572	Dolphin - - -	ditto - „	1837	R. D. Ross - - - - - -	71	1	16	4	8	1	24	57	36	
484	27,735	Viborg - - -	ditto - ,	1859	H. P. Maples - - - - - -	95	5	16	2	8	4½	59	87	12	iron, screw.
485	29,378	Newsky - - -	ditto - „	1861	Z. C. Pearson and others - - - -	172	5	27	0	12	3	337	425	70	iron, screw.
486	19,891	Windermere - -	ditto - „	1857	H. W. Schneider and others - - -	200	3	26	4	16	2	490	107	80	iron, screw.
487	29,382	City of Fez - -	ditto - „	1847	Gustavus Sichel - - - - -	129	2	24	2	13	4	231	279	40	screw.
488	29,387	Hibernia - - -	ditto - „	1861	Atlantic Royal Mail Steam Navigation Company.	360	5	40	4	21	5	1,521	2,959	800	iron.
489	29,389	Columbia - -	ditto - „	„	- - ditto - - - - - -	364	8	40	1	28	6	1,591	2,878	1,000	iron.
490	29,393	Palikari - - -	ditto - „	„	Stefanos Xenos - - - - - -	243	8	31	8	19	4	891	1,116	140	iron, screw.
491	29,395	Anglia - - -	ditto - „	„	Atlantic Royal Mail Steam Navigation Company.	365	0	40	2	28	7	1,594	2,884	1,000	iron.
492	29,397	Mooltan - - -	ditto - „	1860	Peninsular and Oriental Company - -	348	8	89	1	28	7	1,627	2,257	400	iron, screw.
493	22,021	Esk - - -	ditto - „	1859	Cheeswright & Miskin - - - -	177	0	24	4	11	9	237	349	60	iron, screw.
494	29,759	Onda - - -	ditto - „	1861	A. G. Robinson - - - - -	231	5	31	8	16	7	797	969	100	iron, screw.
495	3,792	Margaret Ansley -	ditto - „	1852	William Hockley and others - - -	74	1	14	8	7	5	10	46	23	
496	14,943	Phœbe - - -	ditto - „	1851	Z. C. Pearson - - - - - -	172	9	26	0	15	6	417	613	120	iron, screw.
497	9,186	Mitchells - -	ditto - „	1854	William Hockley and others - - -	85	4	17	0	8	7	34	83	47	
498	29,761	Newburn - -	ditto - „	1861	Hugh Taylor and others - - - -	192	1	28	7	16	4	530	687	90	iron, screw.
499	29,766	Leonidas - -	ditto - „	„	Stefanos Xenos - - - - - -	205	5	29	5	12	7	507	602	100	iron, screw.
500	19,397	Start - - -	ditto - „	1857	Charles Lungley - - - - -	94	5	18	7	10	0	92	121	36	screw.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January, 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
501	13,849	Indiana	London - 1861	1852	East India and London Shipping Company	253 7	38 9	25 7	1,623	2,093	300	iron, screw.
502	29,775	Volunteer	ditto - ,,	1861	Robert Green and another	105 0	13 9	6 4	42	59	20	iron.
503	26,216	Mauritius	ditto - ,,	1852	T. S. Begbie	261 0	39 0	33 7	1,451	2,134	300	iron, screw.
504	25,134	Hydaspes	ditto - ,,	,,	East India and London Shipping Company	263 0	38 7	26 1	1,655	2,095	300	iron, screw.
505	29,785	City of London	ditto - ,,	1861	Euphrates and Tigris Steam Navigation Company.	164 7	24 0	4 7	119	169	70	iron.
506	7,127	Perth	ditto - ,,	1834	General Steam Navigation Company	167 2	27 6	17 7	375	595	240	
507	17,838	Circassian	ditto - ,,	1856	Z. C. Pearson	255 0	39 2	23 1	1,045	1,537	350	iron, screw.
508	29,793	Baron Hambro'	ditto - ,,	1861	Charles Lungley and others	182 0	25 1	14 5	360	490	70	iron, screw.
509	22,168	Vulcan	ditto - ,,	1858	Trustees of Ramsgate Harbour	108 0	19 1	9 6	81	149	60	iron.
510	7,887	Calcutta	ditto - ,,	1852	East India and London Shipping Company	258 0	40 2	- -	1,482	2,124	300	iron, screw.
511	11,923	Lady Jocelyn	ditto - ,,	,,	- - ditto	254 0	39 0	25 1	1,692	2,142	350	iron, screw.
512	29,786	Italia	ditto - ,,	1860	London and Mediterranean Steam Navigation Company.	219 0	28 2	16 3	552	682	110	iron, screw.
513	18,646	City of Norwich	ditto - ,,	1851	John Hoüch	220 2	27 2	19 9	663	862	200	iron.
514	29,795	Volunteer	ditto - ,,	1861	A. K. Thompson and another	122 7	17 7	9 2	144	181	40	iron, screw.
515	29,796	Edith	ditto - ,,	,,	C. M. Webster	180 5	28 2	17 0	474	615	70	iron, screw.
516	29,799	Hero	ditto - ,,	,,	Hewett & Co.	96 8	17 5	10 7	44	104	60	
517	17,000	Hawk	ditto - ,,	1854	J. V. Gooch and another	184 7	27 6	14 7	471	542	50	iron, screw.
518	17,305	Prince Ernest	ditto - ,,	1845	South Eastern Railway Company	183 1	22 4	11 4	172	272	150	iron.
519	20,124	Sicilia	ditto - ,,	1861	London and Mediterranean Steam Navigation Company.	227 4	28 1	17 5	581	735	110	iron, screw.
520	26,402	Melbourne	ditto - ,,	1849	W. H. Furlonge	222 3	37 3	22 8	898	1,636	260	iron, screw.
521	20,125	Rifleman	ditto - ,,	1861	Robert Green and another	106 2	13 8	6 5	43	61	24	iron.
522	20,126	Rover	ditto - ,,	,,	Robert Mitchell and others	90 0	18 6	9 3	29	91	50	
523	27,778	Ida	ditto - ,,	1858	John Hoüch	137 7	20 2	- -	170	221	50	iron, screw.
524	43,924	Arratoon Assear	ditto - ,,	1861	A. Arratoon Assear	261 7	35 1	16 7	938	1,480	250	iron, screw.
525	25,121	Queen of the South	ditto - ,,	1852	East India and London Steam Shipping Company.	250 4	39 3	24 7	1,433	2,090	300	iron, screw.
526	43,926	Kent	ditto - ,,	1861	Charles Brownfield	78 4	17 5	9 1	18	71	35	
527	43,929	Haswell	ditto - ,,	,,	Hugh Taylor and others	196 0	29 0	16 8	560	706	90	iron, screw.
528	43,930	Victoria	ditto - ,,	,,	South Eastern Railway Company	208 5	24 0	11 5	217	358	220	iron.
529	43,933	Sir James Duke	ditto - ,,	,,	John Fenwick and others	197 8	28 0	17 4	570	744	90	iron, screw.
530	43,934	Tom John Taylor	ditto - ,,	,,	- - ditto	197 7	28 0	16 2	602	748	90	iron, screw.
531	43,937	Albert	ditto - ,,	1856	M. F. Bremer	177 6	25 5	- -	287	384	100	iron, screw.
532	43,942	Electric	ditto - ,,	1861	Barrington Daines	81 1	17 0	8 6	12	72	30	iron.
533	43,945	Hawthorns	ditto - ,,	,,	Hugh Taylor and others	199 0	28 0	17 4	575	743	90	iron, screw.
534	43,952	Midge	ditto - ,,	,,	James Kitchener	60 0	12 6	6 8	9	27	25	iron, screw.

538	20,395	Scotland	ditto	„	1856	- - ditto	278	8	38	4	18	5	1,139	1,719	500	screw.	
539	43,958	Gladiator	ditto	„	1861	J. D. A. Samuda and another	197	3	26	6	16	2	481	598	100	iron, screw.	
540	24,886	Vigilant	ditto	„	1855	Jonathan Dorning	160	7	22	1	11	5	190	280	60	iron, screw.	
541	43,965	Hellenis	ditto	„	1861	Anglo Ionian Steam Navigation Company	206	1	28	5	17	3	603	755	80	iron, screw.	
542	46,971	Falcon	ditto	„	„	J. H. Gordon	202	2	28	1	16	2	569	676	80	iron, screw.	
543	19,895	Cornubia	ditto	„	1858	T. S. Begbie	190	0	24	7	12	7	259	411	230	iron.	
544	43,974	Stettin	ditto	„	1861	Z. C. Pearson	169	5	27	2	15	5	360	480	90	iron, screw.	
545	43,975	John Fenwick	ditto	„	„	Richard Cory and others	199	0	28	0	17	4	575	743	90	iron, screw.	
546	23,243	Eagle	ditto	„	1855	William Wagstaff	187	8	28	0	15	0	447	548	60	iron, screw.	
547	8,013	Waterloo	ditto	„	1854	General Steam Navigation Company	220	1	29	8	12	7	324	514	240	iron.	
548	26,668	Pacific	ditto	„	„	A. J. Clark	254	3	32	6	23	6	932	1,480	500	iron.	
549	29,762	Adriatic	ditto	„	„	Atlantic Royal Mail Steam Navigation Company.	345	9	50	0	24	1	1,737	3,670	1,400		
550	43,982	Annette	ditto	„	1861	Alexander Rimington	201	7	30	0	18	1	558	752	100	iron, screw.	
551	43,984	Brunette	ditto	„	„	General Iron Screw Collier Company	178	4	28	0	16	3	481	618	80	iron, screw.	
552	27,604	Aberllwenny Quarry Maid.	Aberystwith	1859	1859	R. D. Jones and others	83	1	20	0	10	0	59	102	50	screw.	
553	4,376	Newcastle	Arundel	1858	1824	Thomas Ironmonger and others	89	8	15	7	9	4	32	77	40		
554	18,755	Tweed	Berwick	1859	1859	Berwick Harbour Commissioners	74	4	17	1	9	5	11	67	33		
555	- -	*Waterwitch	Bideford	1849	1835	G. B. Galloway and others	102	0	15	3	9	4	74	130	—		
556	15,710	*Dart	Boston	1854	1844	Joseph Burton	69	2	12	6	6	3	18	40	17		
557	26,873	Cumbrian	ditto	1859	1859	J. H. Thomas and others	83	6	15	9	8	8½	16	66	30		
558	27,146	Lioness	ditto	1860	1858	Joseph Wren	80	2	16	3	8	0	18	60	30		
559	10,933	*Rapid	Bridgwater	1853	1838	Hercules Fowells	64	3	14	4	7	9	8	54	31		
560	10,932	*Perseverance	ditto	„	1840	- - ditto	69	3	16	1	8	0	13	74	36	iron.	
561	3,185	Ruby	ditto	1860	1854	George Reed	177	4	17	1	8	3	98	155	90	iron.	
562	3,838	*Lioness	Bristol	1836	1834	Bristol General Steam Navigation Company	55	4	12	7	7	4	15	39	20		
563	3,826	Wye	ditto	1843	1843	John Jones and others	100	1	15	9	7	9	38	83	64		
564	16,309	Fairy Queen	ditto	1850	1850	- - ditto	101	4	14	8	7	0	33	57	45	iron, screw.	
565	3,273	Calypso	ditto	1855	1855	Bristol General Steam Navigation Company	190	3	27	1	13	7	364	536	135	iron, screw.	
566	3,805	Juverna	ditto	1856	1847	- - ditto	190	9	29	9	14	0	272	515	300	iron.	
567	3,946	Swift	ditto	„	1844	- - ditto	123	8	21	2	9	1	80	147	90	iron.	
568	3,818	Juno	ditto	„	1853	- - ditto	167	8	23	7	11	4	155	247	110	iron.	
569	3,804	Shamrock	ditto	„	1840	- - ditto	154	0	31	8	15	7	251	483	190		
570	3,955	Dart	ditto	„	1849	- - ditto	124	4	18	9	8	5	56	113	58	iron.	
571	14,351	Taff	ditto	„	1856	- - ditto	142	2	18	1	8	6	94	148	90	iron.	
572	14,364	Pioneer	ditto	„	„	John Edwards and others	175	6	23	0	13	0	257	378	100	iron, screw.	
573	3,808	Princess Royal	ditto	„	1850	Bristol General Steam Navigation Company	125	7	17	4	9	4	69	126	90	iron, screw.	
574	15,229	Augusta	ditto	1857	1857	Charles Castle and others	144	4	21	4	13	5	189	278	50	iron, screw.	
575	15,236	Ely	ditto	„	„	Bristol General Steam Navigation Company	157	0	19	3	9	4	119	189	120	iron.	
576	18,580	Clifton	ditto	„	„	Robert Castle and others	198	5	24	5	13	8	304	447	100	iron, screw.	
577	18,581	Neptune	ditto	„	„	Bristol General Steam Navigation Company	102	0	19	1	9	8	29	130	80	iron.	
578	3,944	Avon	ditto	„	1844	Bruce & Stothert	122	5	16	3	8	0	51	103	60	iron, screw.	
579	3,947	Severn	ditto	„	„	- - ditto	117	4	16	4	8	0	43	91	50	iron, screw.	
580	21,198	Royal Bride	ditto	1858	1858	Miles & Co.	228	3	32	1	19	8	876	983	75	iron, screw.	
581	22,097	Flora	ditto	„	„	Bristol General Steam Navigation Company	215	5	25	7	13	5	360	571	260	iron.	
582	22,098	Gem	ditto	„	„	Harman Visger and others	50	9	10	6	5	5	5	11	17	iron, screw.	

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
583	27,323	Teazer	Bristol - 1859	1853	William Roberts and another	59 2	7 7	4 5	12	17	14	screw.
584	27,326	Jane	ditto - „	1859	John Payne	66 8	10 4	5 9	11	27	30	screw.
585	14,368	Atlas	ditto - 1860	1854	Bristol General Steam Navigation Company	98 1	17 7	9 8	17	100	70	
586	3,834	Samson	ditto - „	1838	- - ditto	75 9	16 4	8 6	46	74	55	
587	3,855	Hercules	ditto - „	„	- - ditto	71 9	16 6	8 5	37	58	40	
588	3,829	Stockton	ditto - „	1837	- - ditto	80 1	16 7	8 3	41	65	45	
589	3,833	Sampson	ditto - „	1841	- - ditto	82 8	16 8	8 0	43	68	40	
590	3,830	Tiger	ditto - „	„	- - ditto	77 5	16 7	9 4	50	79	45	
591	3,837	Lion	ditto - „	1836	- - ditto	72 8	17 2	8 5	39	61	40	
592	3,832	Royal Albert	ditto - „	1851	- - ditto	83 8	15 9	8 7	37	59	45	
593	3,831	Panther	ditto - „	1847	- - ditto	82 8	16 1	8 3	41	64	45	
594	3,827	Fearless	ditto - „	1853	- - ditto	88 1	18 6	9 5	56	89	45	
595	29,213	Enterprize	ditto - „	1860	G. K. Stothert and others	84 1	16 0	8 0	70	97	25	iron, screw.
596	26,808	Athlete	ditto - 1861	1855	R. C. Rowe and others	159 5	23 4	13 9	255	356	80	iron, screw.
597	29,215	Ajax	ditto - „	1861	Bristol General Steam Navigation Company	98 1	19 1	9 0	49	124	80	iron.
598	29,217	Wye	ditto - „	„	John Jones and others	116 5	17 0	7 0	54	108	50	iron.
599	44,102	Milford	ditto - „	„	Bristol General Steam Navigation Company	91 6	19 2	7 3	68	85	25	iron, screw.
600	10,191	*Vesta	Caernarvon 1848	1848	Lord Newborough	114 0	20 4	12 2	88	175	70	
601	12,377	*Victoria	ditto - 1854	1854	Peter Jones and others	53 3	8 6	4 9	11	18	40	
602	16,681	*Superb	Cardiff - 1841	1828	William Bird and others	66 5 in.	14 4 in.	9 4 in.	23	—	30	
603	10,693	Dragon	ditto - 1846	1837	J. Grierson and others	88 7	17 0	9 5	40	117	—	
604	10,689	*Cardiff Castle	ditto - 1847	1847	Cardiff Steam Tug Company	76 9	17 0	10 0	22	91	60	
605	10,690	*William	ditto - 1848	„	- - ditto	74 9	14 8	8 4	26	67	25	
606	10,694	*Christina Sinclair	ditto - 1850	1845	- - ditto	77 0	15 2	9 0	25	60	45	
607	10,695	*Queen	ditto - „	1846	- - ditto	77 7	15 3	9 3	22	79	45	
608	3,994	Taliesin	ditto - „	1842	Cardiff Steam Navigation Company	114 4	16 5	9 1	72	145	80	
609	16,689	United States	ditto - 1857	1856	Bute Dock Steam Towing Company	82 6	18 3	10 0	4	99	60	
610	18,587	Iron Duke	ditto - „	1857	Cardiff Steam Towing Company	112 2	18 0	9 0	48	121	100	iron.
611	18,589	Pilot	ditto - „	„	Bute Dock Steam Towing Company	96 5	18 0	10 4	16	109	60	iron.
612	19,371	Ely	ditto - 1858	1858	- - ditto	80 4	16 0	9 0	10	60	35	iron.
613	19,373	Marquis	ditto - „	1855	Cardiff Steam Towing Company	94 5	18 5	9 0	13	101	40	iron.
614	3,953	Jenny Jones	ditto - „	1851	- - ditto	139 5	19 2	9 0	92	166	100	iron, screw.
615	12,599	Storm King	ditto - 1860	1857	Thomas Elliott and others	92 0	17 9	9 0	17	91	55	
616	27,204	Black Eagle	ditto - „	1848	- - ditto and another	90 8	19 0	9 9	23	102	80	
617	6,227	Star	ditto - „	1852	Joseph Hazell	85 4	16 3	16 3	15	70	40	
618	28,149	Velindra	ditto - 1861	1860	Cardiff Steam Navigation Company	158 4	19 1	9 1	125	198	100	iron.
619	19,374	Lady Bute	ditto - „	1857	R. H. Mitchell	74 0	16 7	9 2	15	64	50	
620	18,876	Night Watch	ditto - „	1859	Thomas Elliott and others	83 7	16 9	9 1	13	72	35	
621	28,599	Black Eagle	ditto -	1861	Nicholas Strong and others							

623	16,266	*Prince of Wales -	Carlisle -	1852	1843	Carlisle and Liverpool Steam Navigation Company.	78	5	10	5	5	0	35	50	40	
624	16,212	Silloth - - -	ditto -	1856	1856	Silloth Bay Steam Navigation Company -	154	4	21	3	11	9	199	292	68	iron, screw.
625	12,636	Cambria - - -	ditto -	1858	1854	George Dixon - - - - - -	157	0	22	8	12	5	210	309	70	iron, screw.
626	6,388	Queen - - -	ditto -	1859	1850	Silloth Bay Steam Navigation Company -	141	7	17	1	7	0	58	107	65	iron.
627	16,319	*Alma - - -	Chepstow -	1855	1855	W. C. Smith and others - - - -	105	2	18	1	7	4	115	132	20	iron, screw.
628	- -	*Vale of Clwyd - -	Chester -	1838	1838	John Tarleton - - - - - -	101	5 in.	16	0½ in.	9	7 in.	80	—	—	
629	27,009	*Cymro - - -	ditto -	1848	1848	Great Western Railway Company - -	74	9	14	9	7	9	36	70	33	
630	27,001	Scotia - - -	ditto -	1852	1852	London and North Western Railway Company.	194	0	27	1	13	2	202	419	400	
631	27,018	*Test - - -	ditto -	1853	1853	Great Western Railway Company - -	76	8	15	2	8	8	23	73	32	
632	8,635	Ocean - - -	Chester -	1853	1853	London and North Western Railway Company.	154	7	22	6	15	4	219	426	239	
633	27,002	Hercules - - -	ditto -	„	„	- - ditto - - - - - -	147	6 in.	24	10 in.	15	1 in.	188	—	180	
634	23,920	*Contractor - -	ditto -	1854	1852	H. Barker - - - - - - -	96	0	17	9	9	6	28	119	50	
635	27,003	Hibernia - - -	ditto -	„	1847	London and North Western Railway Company.	197	3	25	6	14	1	282	486	370	iron.
636	27,004	Anglia - - -	ditto -	„	„	- - ditto - - - - - -	190	0	26	2	13	8	201	420	350	iron.
637	24,205	*Royal Victoria -	ditto -	1855	1838	John Tarleton - - - - - -	106	8	14	1	7	3	54	96	65	iron.
638	23,183	Sea Nymph - -	ditto -	1857	1845	London and North Western Railway Company.	206	3	28	8	15	6	304	608	350	iron.
639	7,897	Telegraph - -	ditto -	„	1853	- - ditto - - - - - -	244	6	28	3	15	0	375	766	440	iron.
640	8,659	Cambria - - -	ditto -	1860	1848	- - ditto - - - - - -	244	4	27	4	14	6	469	744	400	iron.
641	28,050	Admiral Moorsom -	ditto -	1861	1860	- - ditto - - - - - -	219	0	30	0	15	1	470	746	400	iron.
642	21,200	*Premier - - -	Clay -	1858	1857	R. Brereton - - - - - -	63	4	14	0	7	7	12	49	30	iron.
643	21,221	*Economy - -	ditto -	1853	1838	James Chapman - - - - - -	62	1	13	8	7	6	18	50	25	
644	19,583	Valetta - - -	Cowes -	1859	1855	Louis Trysden - - - - - -	104	3	12	5	6	8	33	58	35	iron.
645	29,096	Victoria - - -	ditto -	1861	1860	Ryde Quay Company - - - - -	63	3	13	2	5	6	23	36	16	iron.
646	29,100	Lord of the Isles -	ditto -	„	1861	Southampton, Isle of Wight, and Portsmouth Improved Steam Boat Company.	135	5	18	0	7	0	59	91	60	iron.
647	43,772	Lady of the Lake -	ditto -	„	„	- - ditto - - - - - -	147	6	17	9	7	6	65	104	60	iron.
648	4,534	*Undine - - -	Dartmouth -	1853	1847	J. Balley and others - - - - -	89	5	9	4	6	9	20	47	4	iron.
649	17,881	Dartmouth - -	ditto -	1856	1856	R. M. Mortimore and others - - -	85	3	12	0	5	4	31	42	20	iron.
650	17,882	Louisa - - -	ditto -	„	„	Dartmouth Steam Packet Company - -	90	2	9	1	3	6	22	35	10	iron.
651	17,886	Kingsbridge Packet -	ditto -	1857	1857	Robert Hurrell and others - - - -	77	8	18	9	8	3	43	69	32	
652	2,124	Pilot - - -	ditto -	1858	1852	Dartmouth Steam Packet Company - -	84	8	17	9	9	5	26	101	492	
653	29,516	Queen - - -	ditto -	1861	1860	James Prowse and others - - - -	59	3	11	6	4	2	11	18	10	
654	16,720	*Douro - - -	Dover -	1850	1850	Warden and Assistants of Dover Harbour -	92	7	16	9	10	1	54	120	90	
655	16,777	Ondine - - -	ditto -	1856	1847	J. G. Churchward - - - - - -	151	0	19	1	10	3	79	160	68	iron.
656	20,352	Poste - - -	ditto -	1859	1859	- - ditto - - - - - -	89	9	13	0	4	1	25	39	16	iron.
657	6,312	Royal Princess -	Exeter -	1858	1855	T. Kirkwood - - - - - -	102	5	17	7	8	9	37	103	50	iron.
658	11,412	*Sydney - - -	Falmouth -	1848	1841	Richard Taylor, jun. - - - - -	80	7	15	5	9	0	14	80	45	
659	14,388	Dandy - - -	ditto -	1858	1857	Edmund Handcock and others - - -	90	8	17	6	9	2½	19	84	45	
660	7,543	*Venus - - -	Faversham -	1844	1844	G. Hilton and others - - - - -	54	8	10	4	6	6	10	28	16	
661	19,296	Adjutant - - -	Fleetwood -	1858	1858	James Holme and others - - - -	82	8	17	1	8	1	25	80	40	iron.
662	22,656	Prince Patrick - -	ditto -	1859	1856	- - ditto - - - - - -	231	2	25	2	14	7	340	622	150	iron.
663	17,252	Royal Consort - -	ditto -	1860	1844	Frederick Kemp - - - - -	215	5	29	2	16	0	344	672	300	iron.
664	27,320	Prince Alfred - -	ditto -	1861	1861	Frederick Kemp and others - - - -	227	2	28	2	18	7	539	745	340	iron.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
665	11,409	*Forager	Fowey 1854	1826	S. W. Daukes	82 5	16 0	8 5	53	87	36	
666	17,413	*Columbine	Gainsborough 1843	1843	Gainsborough United Steam Packet Company	113 0	15 0	8 0	56	85	40	
667	17,412	*Harlequin	ditto 1853	1848	- - ditto	116 9	14 9	7 7	74	103	40	iron.
668	17,411	*Atalanta	ditto „	1851	- - ditto	121 0	15 0	7 7	72	101	40	iron.
669	17,427	Ant	ditto 1856	1856	William Furley	72 7	12 5	4 6	24	36	14	iron, screw.
670	12,422	Sea Nymph	ditto 1857	1851	George Cross	126 6	18 6	10 4	103	151	40	screw.
671	17,430	Bee	ditto 1858	1858	W. C. Furley and others	92 6	15 6	7 0	48	78	20	iron, screw.
672	10,167	Fury	ditto 1859	1854	William Rainforth	73 9	15 6	7 9	19	46	30	
673	17,431	Isle of Axholme	ditto 1860	1860	Gainsborough United Steam Packet Company	130 0	16 1	7 0	57	91	40	iron.
674	28,992	Cricket	ditto 1861	„	W. C. Furley	98 9	15 6	7 1	50	79	20	iron, screw.
675	28,993	Aberystwyth	ditto „	1861	- - ditto	121 8	17 1	9 1	98	137	40	iron, screw.
676	12,345	*Clara	Gloucester 1846	1842	P. D. Latouche and others	85 6	12 5	6 5	34	51	24	
677	20,984	Kilmun	ditto 1859	1859	David Napier	137 0	15 0	8 0	40	106	80	iron, screw.
678	27,876	Edmund Ironsides	ditto 1860	1860	John Markham	89 7	19 2	7 4	64	94	20	iron, screw.
679	28,807	Cuirassier	ditto „	„	- - ditto	90 2	19 6	8 2	91	110	70	steel.
680	29,752	Bee	ditto 1861	1859	Samuel Herbert	64 4	12 3	2 9	13	18	12	iron.
681	43,668	Wave	ditto „	„	J. G. Francillon and another	86 9	11 3	5 9	29	44	15	iron, screw.
682	43,669	Lapwing	ditto „	1853	- - ditto	64 8	9 4	5 4	13	20	10	iron, screw.
683	4,968	*Jupiter	Goole 1849	1837	John Robson and others	88 3	16 5	10 2	69	121	50	
684	11,356	*Judith	ditto „	1847	Joseph Burton and others	61 3	13 6	7 6	12	44	18	
685	15,181	William France	ditto 1856	1856	William France and others	150 2	26 1	14 7	282	403	60	iron, screw.
686	18,064	Empress	ditto „	„	John Moody and others	114 1	12 9	5 9	43	68	24	iron.
687	18,248	Resolute	ditto 1857	1857	William France and another	134 0	20 4	12 0	138	203	40	iron, screw.
688	20,196	Contest	ditto „	„	William France and others	154 3	21 2	12 5	188	277	50	iron, screw.
689	20,988	Havelock	ditto 1858	1858	Robert Bromley and others	79 9	16 4	8 8	13	63	33	
690	20,998	Minerva	ditto „	1843	George Jackson and another	170 0	18 2	9 5	138	219	110	iron.
691	24,392	La Plata	ditto 1859	1854	H. J. Watson	160 0	25 0	13 2	253	372	50	iron, screw.
692	16,283	Deva	ditto „	1857	- - ditto	133 0	21 5	11 7	169	248	40	iron, screw.
693	28,408	Colin Campbell	ditto 1860	1858	Robert Bromley and others	80 1	16 6	9 1	8	64	30	
694	17,871	Killarney	ditto „	1856	George Jackson and another	148 5	21 9	11 4	191	281	70	iron, screw.
695	10,181	Lass o'Gowrie	ditto 1861	1855	Thomas Bromley	75 0	16 1	8 1	12	42	26	
696	28,582	Tynemouth	ditto „	1860	William Turgoose and others	82 5	16 4	8 8	22	69	28	
697	14,991	Cheviot	ditto „	1856	H. J. Watson	118 7	19 2	9 8	124	183	50	iron, screw.
698	29,206	Uncle Sam	ditto „	1861	George Jackson and others	83 4	15 9	8 9	25	70	35	
699	1,389	Eagle	ditto „	1852	H. J. Watson	167 2	25 3	14 1	284	406	120	iron, screw.
700	17,761	*Endeavour	Grimsby 1851	1835	George Turner and another	64 0	13 6	7 8	21	54	27	
701	17,768	*Ann Scarborough	ditto 1852	1833	Messrs. Earle	52 0	11 6	6 9	13	31	12	
702	15,244	*Peep-o'-day Boy	ditto „	1848	Nathan Chapman	62 4	13 3	7 0	13	41	20	
703	10,686	*Tyro	ditto 1854	1838	R. H. Mitchell	63 7	14 0	8 8	17	55	22	

705	11,128	Eugenie - - -	ditto -	1856	1856	Anglo-French Steam Ship Company - -	173	5	25	8	14	0	393	445	80	iron, screw.
706	16,663	Albert - - -	ditto -	„	„	- - ditto - - - - - -	175	5	27	8	15	1	339	499	80	iron, screw.
707	16,670	Lord Ashley - -	ditto -	1857	1857	Inter-Colonial Royal Mail Packet Company -	188	5	24	8	13	0	296	435	80	iron, screw.
708	18,881	Grimsby - - -	ditto -	„	„	Anglo-French Steam Ship Company - -	208	9	28	5	16	0	443	651	100	iron, screw.
709	18,884	Lord Worsley - -	ditto -	„	„	Inter-Colonial Royal Mail Packet Company -	186	0	24	0	13	0	291	427	80	iron, screw.
710	7,700	Wilberforce - -	ditto -	1859	1846	Edward Bannister and another - - -	76	2	16	8	9	0	12	61	40	
711	7,694	William and John -	ditto -	„	1842	Nathan Chapman - - - - -	73	6	17	2	8	9	18	71	40	
712	5,380	Lord Cardigan - -	ditto -	1860	1855	Anglo-French Steam Ship Company - -	170	0	26	8	15	0	377	472	80	iron, screw.
713	12,899	Iron Era - - -	Hartlepool -	1857	1856	Mountjoy Pearse and others - - -	176	3	27	3	14	6	402	494	250	iron, screw.
714	19,139	Greatham Hall -	ditto -	„	1857	Mountjoy Pearse and another - - -	194	9	27	2	16	1	462	584	90	iron, screw.
715	19,140	Ann - - -	ditto -	1861	„	Z. C. Pearson - - - - - -	155	0	19	8	12	2	189	278	60	iron, screw.
716	26,141	Osprey - - -	{Hartlepool, West} -	1860	1855	R. W. Jackson and another - - - -	176	2	28	4	15	0	384	564	150	iron, screw.
717	5,150	Zingari - - -	ditto -	„	1854	- - ditto - - - - - -	157	0	25	0	12	3	233	342	70	iron, screw.
718	26,103	Ranger - - -	ditto -	„	1848	- - ditto - - - - - -	80	8	17	0	9	4	16	76	35	
719	26,102	William Charles -	ditto -	„	1852	- - ditto - - - - - -	83	8	17	3	8	8	19	77	40	
720	5,151	Ward Jackson - -	ditto -	„	1854	- - ditto - - - - - -	183	2	25	0	13	0	339	494	90	iron, screw.
721	27,881	Normanby - -	ditto -	„	1859	- - ditto - - - - - -	184	8	26	5	13	5	311	458	90	iron, screw.
722	18,195	Admiral Cator - -	ditto -	„	1857	- - ditto - - - - - -	178	3	22	0	12	5	212	311	60	iron, screw.
723	5,112	John Bull - -	ditto -	„	1854	- - ditto - - - - - -	77	0	18	0	9	1	10	75	40	
724	12,885	Gitana - - -	ditto -	„	1855	- - ditto - - - - - -	173	0	26	0	14	0	334	490	100	iron, screw.
725	28,287	Fairy Queen - -	ditto -	1861	1860	- - ditto - - - - - -	175	3	23	0	12	0	234	345	70	iron, screw.
726	12,889	Gipsy Queen - -	ditto -	„	1856	- - ditto - - - - - -	207	1	26	3	15	0	455	669	100	iron, screw.
727	26,146	West - - -	ditto -	„	1849	R. W. Jackson and others - - - -	78	9	17	2	8	0	10	64	35	
728	23,850	Sheldrake - -	ditto -	„	1855	R. W. Jackson and another - - - -	209	0	28	5	15	0	559	694	100	iron, screw.
729	28,289	Conqueror - -	ditto -	„	1861	W. C. Ward - - - - - -	107	0	20	4	10	2	56	144	60	iron.
730	5,355	*Transit - - -	Hull -	1842	1831	W. B. Brownlow - - - - -	161	1	20	9	15	1	332	498	150	
731	5,387	*Helen M'Gregor -	ditto -	1843	1843	William Liddle - - - - - -	180	0	25	0	15	8	436	601	220	
732	5,349	*Gazelle - - -	ditto -	1844	1832	W. B. Brownlow - - - - -	151	7	19	5	13	1	269	403	100	
733	- -	*Shannon - - -	ditto -	1846	1846	Wakefield Pim - - - - - -	70	0	15	1	9	0	9	82	—	
734	13,594	*Emperor - - -	ditto -	1849	1849	William Liddle and others - - - -	241	4	31	3	19	6	914	1,320	450	
735	7,563	*Manchester - -	ditto -	„	„	Manchester, Sheffield, and Lincolnshire Railway Company.	164	9	22	4	9	6	174	291	150	
736	7,555	*Eliza - - -	ditto -	1850	1836	Stephen Gray - - - - - -	67	3	13	2	8	2	20	54	30	
737	7,564	*Sheffield - - -	ditto -	„	1849	Manchester, Sheffield, and Lincolnshire Railway Company.	160	8	21	9	9	1	149	244	150	
738	16,836	*Black Eagle - -	ditto -	1851	1851	Drogheda Steam Packet Company - -	76	6	16	5	9	6	33	90	48	iron.
739	5,366	*Iris - - - -	ditto -	„	1838	W. B. Brownlow - - - - -	115	0	18	8	9	0	97	158	90	
740	12,487	*Fairy - - -	ditto -	„	1851	H. H. Cook & others - - - - -	113	2	17	6	10	5	111	164	60	iron, screw.
741	5,314	*Albatross - - -	ditto -	1852	1834	W. B. Brownlow - - - - -	123	3	18	9	11	5	168	249	90	
742	5,336	*Falcon - - -	ditto -	1854	1854	W. B. Brownlow and others - - -	121	5	23	2	14	2	347	477	100	iron, screw.
743	5,360	*Ocean Queen - -	ditto -	„	„	W. N. Depledge and others - - -	137	5	18	2	9	8	176	219	50	iron, screw.
744	5,357	*Corkscrew - -	ditto -	„	1844	W. Leetham and others - - - -	108	7	20	3	12	1	161	206	26	iron, screw.
745	25,137	*Alster - - -	ditto -	„	1854	William Liddle - - - - - -	180	6	24	8	15	0	299	485	120	
746	7,699	*Pilot - - -	ditto -	1855	1855	W. Shearsmith, sen. - - - - -	69	5	13	8	8	1	18	54	28	iron, screw.
747	5,364	Hawk - - -	ditto -	„	„	Thomas Voase - - - - - -	173	4	24	6	12	7	260	357	100	iron, screw.
748	17,710	Sea Gull - - -	ditto -	„	1848	- - ditto - - - - - -	212	2	28	6	14	5	356	565	240	iron.
749	5,563	Martlet - - -	ditto -	„	1855	W. B. Brownlow and others - - -	149	7	20	2	11	0	170	250	50	iron, screw.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
750	5,358	Prince	Hull 1855	1849	W. B. Brownlow and others	169 9	28 0	10 0	291	379	100	iron.
751	14,981	St. Petersburg	ditto 1856	1856	William Bayley and others	188 7	26 6	15 7	461	579	70	iron, screw.
752	14,988	Sea Horse	ditto „	„	Thomas Voase	195 0	26 0	13 5	335	493	120	iron, screw.
753	22,830	Pacha	ditto „	1855	William Liddle and others	150 5	26 1	14 7	284	431	60	iron, screw.
754	12,705	Diana	ditto 1857	1840	Whale and Seal Fishing Company	117 1	29 0	17 0	292	355	40	screw.
755	18,159	Tiger	ditto „	1857	W. B. Brownlow and others	213 4	27 0	16 0	443	651	170	iron, screw.
756	19,457	Velocity	ditto „	„	East of England Screw Coasting Company	146 5	21 0	11 2	176	259	50	iron, screw.
757	19,460	Vigilant	ditto „	„	- - ditto	146 0	21 0	12 6	217	319	70	iron, screw.
758	20,263	Swallow	ditto „	„	E. L. Betts	172 0	21 2	12 6	217	319	70	iron, screw.
759	20,634	Leopard	ditto 1858	1858	W. B. Brownlow and others	223 1	28 0	16 0	500	735	170	iron, screw.
760	20,635	Bolderaa	ditto „	„	C. M. & J. F. Norwood	187 0	26 0	14 0	443	535	70	iron, screw.
761	16,152	Sampson	ditto „	1846	James Swallow and others	71 0	15 2	8 1	21	61	39	
762	22,139	James Watt	ditto „	1858	Stephen Gray	80 0	17 2	9 0	15	76	40	iron.
763	10,175	British Hero	ditto „	1848	Robert Teall	84 6	17 8	9 0	12	75	45	
764	5,352	Scandinavian	ditto „	1852	Thomas Wilson	186 5	26 0	13 9	323	475	98	iron, screw.
765	26,881	Powerful	ditto „	1857	Hull Dock Company	107 0	16 2	8 0	53	119	80	iron.
766	27,023	Zebra	ditto 1859	1859	W. B. Brownlow and others	196 0	26 5	14 9	426	542	80	iron, screw.
767	5,318	Emerald Isle	ditto „	1835	William Liddle and others	172 5	29 2	14 0	368	473	150	iron, screw.
768	11,526	Sultana	ditto „	1856	- - ditto	180 0	26 0	14 0	357	526	60	iron, screw.
769	5,348	Irwell	ditto „	1854	Thomas Voase	193 2	26 0	15 5	467	589	90	iron, screw.
770	27,561	Czar	ditto „	1859	George Swainton	121 8	21 0	10 3	116	184	100	iron.
771	27,567	Cossack	ditto „	„	William Bailey and another	218 7	29 4	17 5	740	872	150	iron, screw.
772	27,965	Minister Thorbecke	ditto „	1853	Thomas Voase	139 3	22 3	10 0	175	258	60	screw.
773	5,362	Secret	ditto 1860	1847	Louis Kühling	182 4	23 0	12 9	321	392	50	iron, screw.
774	28,253	Argo	ditto „	1860	Thomas Wilson	210 0	27 0	16 2	482	709	120	iron, screw.
775	5,353	Humber	ditto „	1854	Thomas Wilson and others	211 0	26 2	14 2	465	576	90	iron, screw.
776	17,705	Swanland	ditto „	1851	J. R. Ringrose and others	206 0	25 0	13 0	381	560	100	iron, screw.
777	15,245	Mary Ann	ditto „	1832	Henry Booker	57 0	13 3	7 2	12	36	15	
778	28,264	Pacific	ditto „	1860	Thomas Wilson and others	203 8	27 2	16 5	575	688	80	iron, screw.
779	28,268	Hecla	ditto „	„	William Rainforth	84 0	17 3	9 2	19	76	36	
780	5,347	Queen of Scotland	ditto „	1827	Thomas Hudson and others	166 0	26 0	16 0	421	583	150	
781	8,110	Excelsior	ditto „	1855	Richard Glover and others	180 0	24 2	13 6	286	420	70	iron, screw.
782	28,262	Rob Roy	ditto 1861	1847	George Owen	72 9	15 0	8 2	37	58	28	
783	6,226	Industry	ditto „	1833	Wilkinson Shearsmith	63 6	14 5	7 7	8	43	27	
784	29,316	Albion	ditto „	1861	Thomas Wilson and others	245 2	29 0	17 0	769	900	120	iron, screw.
785	29,318	Nautilus	ditto „	„	W. B. Brownlow and others	210 5	26 4	15 0	526	629	80	iron, screw.
786	29,321	Zealand	ditto „	1858	William Bailey and others	180 7	26 0	11 9	368	450	70	iron, screw.
787	25,619	Labuan	ditto „	1855	- - ditto	217 2	27 8	17 4	723	837	80	iron, screw.

789	4,912	Fletcher's Despatch	ditto	„	1839	Henry Booker	67	4	15	7	8	4	15	35	28				
790	5,356	Neptune	ditto	„	1837	T. F. Bell	133	0	19	2	12	5	158	240	90				
791	42,527	Oder	ditto	„	1861	Thomas Wilson	200	0	27	5	15	0	556	694	100	iron, screw.			
792	22,615	Queen Victoria	ditto	„	1855	William Bailey and another	261	3	35	1	27	0	1,434	1,728	250	iron, screw.			
793	42,529	Tartar	ditto	„	1861	- - ditto	192	0	28	5	17	0	559	700	90	iron, screw.			
794	42,530	Octa	ditto	„	„	C. M. & J. F. Norwood	186	7	27	2	14	5	464	568	70	iron, screw.			
795	5,526	Alert	ditto	„	1855	J. R. Ringrose and others	176	0	21	4	10	8	244	306	60	iron, screw.			
796	17,754	Gertrude	ditto	„	„	Z. C. Pearson and others	209	0	26	8	15	0	526	608	80	iron, screw.			
797	43,792	Juno	ditto	„	1861	Thomas Wilson and others	228	2	29	0	21	2	781	967	140	iron, screw.			
798	18,058	Florence Nightingale	ditto	„	1857	James Swallow	79	0	15	8	8	0	11	60	30				
799	27,027	Harlequin	ditto	„	1854	Lofthouse and Glover	198	8	24	5	12	6	334	441	85	iron.			
800	20,533	*Atalanta	Ipswich	-	1854	1841	Eastern Counties Railway Company	104	4	14	3	6	8	50	72	34	iron.		
801	9,975	*Cardinal Wolsey	ditto	-	„	1845	- - ditto	104	0	11	9	6	8	43	57	25	iron.		
802	9,976	*River Queen	ditto	-	„	1839	- - ditto	98	3	13	2	6	5	43	67	22	iron.		
803	18,294	*Prince	ditto	-	„	1852	- - ditto	100	8	13	3	7	1	48	72	36			
804	20,088	Queen of the Isles	ditto	-	1858	1853	Edward Dorling	111	0	13	0	6	8	41	65	32			
805	18,151	Lady Elizabeth	ditto	-	„	1856	- - ditto	98	3	13	9	6	5	37	59	28	iron.		
806	23,053	Father Thames	ditto	-	1859	1840	Watermen's Steam Packet Company	140	0	18	8	8	9	77	122	80	iron.		
807	29,851	Queen of the Thames	ditto	-	1861	1861	- - ditto	158	0	19	0	8	2	100	143	80	iron.		
808	15,645	Metis	ditto	-	„	1857	Woolwich Steam Packet Company	141	0	16	3	6	8	59	94	40			
809	17,244	*Helvellyn	Lancaster	-	1851	1847	Furness Railway Company	131	1	16	5	8	3	87	153	75	iron.		
810	18,208	*Plover	ditto	-	1852	1848	M. R. Ryan	159	9	16	0	7	6	99	141	70	iron.		
811	18,206	Laurel	ditto	-	1854	1850	H. J. Hare & Co.	187	4	22	0	12	5	190	365	180	iron.		
812	18,218	*Sultan	ditto	-	„	1854	James Ramsden	68	3	13	6	8	0	19	52	24			
813	18,219	*Sir William Wallace	ditto	-	„	„	- - ditto	27	5	14	4	8	7	23	45	28			
814	10,585	Promise	ditto	-	1856	1851	B. Harrison	79	1	15	6	8	0	39	61	35	iron.		
815	20,485	Duchess	ditto	-	1858	1858	John Greig and others	128	2	18	2	11	6	131	192	60	iron, screw.		
816	18,205	Arbutus	ditto	-	„	1854	William Whelon	179	8	22	0	12	3	237	348	75	iron, screw.		
817	27,762	Myrtle	ditto	-	1859	1859	- - ditto	70	4	13	6	5	0	28	44	20	iron.		
818	28,499	Shelburne	ditto	-	1861	1860	W. E. Hutchinson and another	213	0	24	0½	12	5	283	450	240	iron.		
819	28,488	Talbot	ditto	-	„	„	- - ditto	213	6	24	0½	12	5	283	450	240	iron.		
820	16,174	*Manchester	Liverpool	-	1826	1825	David Bellhouse	72	5 in.	16	6 in.	8	2 in.	43	- -	24			
821	- -	*Kingfisher	ditto	-	1830	1830	Hugh Williams	77	0	16	9 in.	7	8 in.	57	- -	40			
822	- -	*Satellite	ditto	-	1831	1825	North Wales Steam Packet Company	74	8 in.	16	0	7	10 in.	57	- -	70			
823	- -	*George	ditto	-	1834	1834	Philip Lawrence	85	4 in.	16	3 in.	8	5 in	55	—	—			
824	- -	*Cleveland	ditto	-	1836	1836	Liverpool Steam Ferry Company	86	4	18	1	7	9	43	95	50			
825	16,856	*William Fawcett	ditto	-	1838	1829	Willoughby and Son	74	3	15	1	8	4	48	90	60			
826	- -	*Thomas Royden	ditto	-	„	1837	Nichol, Lawson & Co.	90	7	15	1	7	4	64	108	45			
827	7,061	*Tower	ditto	-	1840	1836	Mersey and Irwell Navigation Company	81	6	16	1	8	5	47	97	50			
828	7,062	*Rival	ditto	-	1841	1834	- - ditto	81	8	16	2	8	0	50	100	50			
829	- -	*Eclipse	ditto	-	„	1826	Thomas M'Tear and another	104	0	16	9	10	8	98	174	—			
830	16,859	*Mersey	ditto	-	„	1841	Edward Willoughby and Son	87	5	16	4	7	9	74	107	45			
831	- -	*Blanche	ditto	-	1842	„	Trustees of the Duke of Bridgwater	105	4	17	1	8	0	156	205	—			
832	6,010	*Elizabeth	ditto	-	1845	1840	Wallasey Local Board	88	6	15	3	7	3	51	96	36			
833	6,011	*Queen of Beauty	ditto	-	„	1845	W. R. and E. W. Coulborn	120	0	15	7	7	0	64	104	30			
834	16,858	*Birkenhead	ditto	-	1846	1846	Edward Willoughby and Son	100	7	17	1	10	0	62	132	60			
835	6,012	*James Atherton	ditto	-	„	„	Wallasey Local Board	116	0	16	3	7	6	67	108	50			
836	- -	*New Grenada	ditto	-	1847	„	Pacific Steam Navigation Company	177	4	24	6	14	6	429	649	—			
837	16,857	*Britannia	ditto	-	„	1847	Edward Willoughby and Son	111	6	17	0	8	5	81	124	100			

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS.			TONNAGE.		Horse Power.	—
						Length.	Breadth.	Depth of Hold.	Exclusive of Engine Room.	Gross Tonnage.		
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
838	16,899	*Colchester	Liverpool - 1848	1840	Edward Forster	91 2	16 9	9 8	35	119	20	
839	5,589	*Queen	ditto - 1849	1842	Manchester, Sheffield, and Lincolnshire Railway Company.	99 5	13 8	7 5	52	79	32	iron.
840	10,582	*Powerful	ditto - ,,	,,	James Haddock	102 5	19 1	10 5	32	144	120	
841	- -	*Bolivia	ditto - ,,	1849	Pacific Steam Navigation Company	197 5	26 0	15 0	509	773	—	iron.
842	6,014	*Wallasey	ditto - 1850	1847	Wallasey Local Board	109 8	16 6	9 0	49	109	45	
843	6,013	*Fairy	ditto - ,,	1849	- - ditto	118 0	16 0	7 5	75	112	58	
844	16,176	*Duke of Sussex	ditto - ,,	1840	J. R. Murphy	82 0	15 8	8 8	31	92	40	
845	20,758	*Queen	ditto - ,,	1844	W. T. Rudd	109 4	21 2	9 7	126	173	60	iron.
846	20,759	*Wirrall	ditto - ,,	1846	- ditto	109 1	20 9	11 0	111	192	60	iron.
847	6,018	*Independence	ditto - ,,	1850	Peter Maddox and others	124 2	22 9	11 1	110	254	111	iron.
848	12,110	*Prince Albert	ditto - ,,	1849	Marquis of Titchfield	78 0	15 4	8 8	24	75	45	
849	24,210	*Arno	ditto - 1851	1850	General Steam Navigation Company	190 0	26 4	16 6	463	670	100	iron, screw.
850	4,241	*Zephyr	ditto - ,,	1832	W. H. Owen	113 5	17 3½	10 7	104	177	90	
851	2,372	*Tartar	ditto - ,,	1849	Liverpool Steam Tug Company	113 9	20 2	11 3	113	244	110	
852	16,175	*Hero	ditto - ,,	1832	E. & W. Forster	94 5	14 6	8 6	43	91	40	
853	15,396	City of Manchester	ditto - ,,	1851	William Langston and others	261 8	36 2	25 3	1,296	2,096	450	iron, screw.
854	1,677	*Frankfort	ditto - ,,	,,	J. J. Bibby and others	190 0	26 6	16 8	414	657	100	iron, screw.
855	16,849	*Vernon	ditto - ,,	1849	E. & S. Willoughby	121 8	16 2	7 9	88	122	60	iron.
856	16,850	*Cato	ditto - ,,	,,	- - ditto	109 7	17 9	8 4	86	127	60	iron.
857	9,246	*Dumbarton Youth	ditto - 1853	1847	J. O. Lever	122 6	20 8	11 9	184	236	34	iron, screw.
858	- -	*Ramsgate Packet	ditto - ,,	1834	Thomas Prestopino	94 5	14 9	9 8	58	109	—	
859	38,995	*Enterprise	ditto - ,,	1826	T. H. Holderness and another	120 0	19 0	12 6	131	230	—	
860	1,985	Amelia	ditto - ,,	1853	F. H. Powell and others	145 6	21 2	13 1	168	256	60	iron, screw.
861	26,044	*Samson	ditto - ,,	1848	Liverpool Steam Tug Company	114 7	21 0	10 5	72	185	100	iron.
862	2,366	*Dreadnought	ditto - ,,	1844	- - ditto	113 6	20 3	11 8	98	222	120	
863	15,046	*Tiger	ditto - ,,	1853	Wallasey Local Board	91 6	16 0	9 3	54	107	40	iron.
864	- -	*Rattlesnake	ditto - ,,	,,	George Booker	101 0	15 5	7 6	61	99	—	iron.
865	6,033	*Constitution	ditto - ,,	,,	Peter Maddox and others	132 9	22 3	11 9	49	262	120	iron.
866	1,153	*Douro	ditto - ,,	,,	J. J. Bibby and others	155 7	22 2	12 4	185	278	52	iron, screw.
867	7,014	*Invincible	ditto - ,,	1852	John Rigby	105 0	16 6	8 9	66	111	70	iron.
868	2,000	*Orontes	ditto - ,,	1851	Papayanni and others	188 5	26 8	17 0	538	748	140	iron, screw.
869	- -	*Woodside	ditto - ,,	1853	F. R. Price	108 2	19 7	7 0	79	115	70	iron.
870	6,953	*James Dennistoun	ditto - 1854	1835	Sampson Moore	104 8	14 6	9 0	77	127	65	
871	9,157	*Ottawa	ditto - ,,	1853	Peninsular and Oriental Company	238 8	29 2	23 8	815	1,275	200	iron, screw.
872	16,853	*Loch Lomond	ditto - ,,	1845	W. Hiliar	126 0	16 3	6 7	68	106	60	iron.
873	7,030	*Iron King	ditto - ,,	1854	H. J. Ward and others	123 0	18 3	10 8	79	172	100	iron.
874	1,152	*Minho	ditto - ,,	,,	J. J. Bibby and others	175 3	22 0	13 5	254	400	82	iron, screw.
875	1,058	Tamaulipas	ditto - ,,	1852	W. M. Moss	163 2	23 7	13 6	336	458	80	iron, screw.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
877	24,930	*Pleiad	ditto	„	„	Hayes and Hindson	104	6	20	4	8	8	71	117	40	iron, screw.
878	2,370	*Pilot	ditto	„	„	Liverpool Steam Tug Company	109	3	17	6	8	1	64	112	60	iron.
879	23,923	*Blarney	ditto	„	1846	W. D. Applebee and another	134	7	20	0	11	1	209	252	—	iron, screw.
880	24,187	*Modern Athens	ditto	„	1836	Thomas Walker	118	5	18	1	12	2	76	201	120	
881	11,142	*Imperador	ditto	„	1854	R. S. Newall	263	5	35	2	24	2	1,315	1,740	200	iron, screw.
882	24,085	*Thomas Wilson	ditto	„	1845	Wallasey Local Board	92	7	14	8	8	4	49	89	50	iron.
883	15,080	Loire	ditto	„	1854	John Vernon and others	177	3	25	2	12	8	322	469	70	iron, screw.
884	17,769	Isabella Croll	ditto	„	„	Thomas Powell and others	163	7	26	6	14	9	375	479	78	iron, screw.
885	-	*Helen Fawcett	ditto	„	1849	James Wilkin	107	9	17	5	10	3	45	135	—	
886	25,751	*Imperatriz	ditto	„	1854	R. S. Newall	261	3	35	0	23	8	1,311	1,738	200	iron, screw.
887	1,151	*Cintra	ditto	„	„	Charles Colesworth and others	176	4	23	1	14	9	350	517	166	iron, screw.
888	6,000	*Pactolus	ditto	„	„	W. J. Lamport and others	238	5	30	1	20	2	653	1,157	180	iron, screw.
889	-	*Conqueror	ditto	1855	1848	W. and J. Binns	73	6	14	7	8	8	21	66	—	iron.
890	25,967	Great Britain	ditto	„	1840	Liverpool and Australian Navigation Company.	274	0	48	2	31	5	1,734	3,509	500	iron, screw.
891	14,550	*City of Baltimore	ditto	„	1855	William Inman and others	325	4	38	1	25	8	1,225	2,368	500	iron, screw.
892	1,098	*Curlew	ditto	„	1837	Ellis Hughes and others	95	0	15	2	8	5	44	82	39	iron.
893	1,353	Empress Eugenie	ditto	„	1855	F. A. Tamplin and others	386	7	25	7	14	0	425	582	90	iron, screw.
894	1,840	Corinthian	ditto	„	„	J. J. Bibby and others	238	5	29	7	20	0	704	1,170	153	iron, screw.
895	3,907	Mæander	ditto	„	„	- - ditto	239	1	30	2	19	0	662	974	160	iron, screw.
896	24,277	Hawk	ditto	„	„	Viscount Hill	84	8	17	0	8	0	118	142	15	iron, screw.
897	22,818	Ant	ditto	„	„	T. Y. and R. Hetherington	122	6	18	1	7	5	65	102	60	iron.
898	25,775	Neptune	ditto	„	1853	Charles M'Iver	71	1	9	4	4	2	13	18	10	iron, screw.
~~899~~	~~25,215~~	~~Universe~~	~~ditto~~	—	„	~~1855~~ ~~Peter Maddox and others~~	135	3	23	4	11	2	143	311	120	iron.
900	19,715	Albanian	ditto	„	„	John Bibby and others	237	9	30	2	19	8	703	1,034	180	iron, screw.
901	1,472	Euphrates	ditto	„	1854	- - ditto	260	0	30	3	20	0	771	1,134	196	iron, screw.
902	1,885	Defiance	ditto	„	1841	Calvert and Geech	112	3	23	6	11	2	152	241	150	iron.
903	22,838	Thessalia	ditto	„	1855	G. M. Papayanni and others	257	0	30	8	20	1	795	1,169	200	iron, screw.
904	22,938	African	ditto	„	„	W. S. and W. H. Dixon	280	8	34	2	23	7	1,040	1,530	256	iron, screw.
905	26,081	Enterprise	ditto	„	„	Peter Maddox and others	136	0	23	1	11	4	150	319	120	iron.
906	1,758	Arcadia	ditto	„	„	G. M. Papayanni and others	234	6	31	1	20	5	741	1,089	150	iron, screw.
907	22,827	Bee	ditto	„	„	R. Hetherington	122	4	18	1	7	4	65	104	60	iron.
908	22,933	City of Washington	ditto	„	„	William Inman and others	319	0	40	1	19	2	1,619	2,381	460	iron, screw.
909	2,374	Lioness	ditto	„	1836	G. K. Dixon and others	90	8	18	4	7	9	58	93	50	iron.
910	6,041	Victoria	ditto	„	1855	H. K. Aspinall	92	0	16	1	7	4	60	89	30	iron, screw.
911	10,470	Milan	ditto	„	„	Frederick Chapple and others	240	2	31	2	19	5	736	1,083	210	iron, screw.
912	24,265	Star	ditto	1856	1845	Robert Hetherington	94	1	16	2	7	6	43	67	140	iron.
913	10,550	Araxes	ditto	„	1855	W. M. Moss and others	251	5	32	0	21	1	786	1,156	180	iron, screw.
914	10,551	United States	ditto	„	„	United Steam Tug Company	137	1	23	1	11	4	75	235	130	iron.
915	25,358	Great Conquest	ditto	„	„	John Strong and others	136	8	21	1	10	6	50	191	100	iron.
916	10,498	Cleator	ditto	„	1854	Alfred Holt and others	160	4	22	9	13	1	269	342	50	iron, screw.
917	10,569	Countess of Ellesmere	ditto	„	1852	W. V. Willis and others	172	0	20	0	7	9	100	158	100	iron.
918	13,588	Braganza	ditto	„	1856	Frederick Chapple and others	180	7	25	2	15	0	400	507	80	iron, screw.
919	14,783	Annie Vernon	ditto	„	„	John Bacon and others	170	0	26	6	16	7	422	519	70	iron, screw.
920	15,048	Laconia	ditto	„	„	G. M. Papayanni and others	256	5	31	1	20	0	783	1,151	200	iron, screw.
921	15,052	Fire King	ditto	„	„	H. Grissell	105	6	18	8	10	4	76	121	60	iron.
922	15,369	Inca	ditto	„	„	Pacific Steam Navigation Company	180	7	20	8	10	8	230	290	80	iron.
923	15,375	Druid	ditto	„	„	John Hunter and another	161	0	20	1	9	4	137	217	135	iron.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS.			TONNAGE.		Horse Power.	—
						Length.	Breadth.	Depth of Hold.	Exclusive of Engine Room.	Gross Tonnage.		
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
924	7,855	Comet	Liverpool - 1856	1854	W. and E. Forster	137 0	18 9	9 0	93	148	80	
925	15,377	Fury	ditto - „	1856	Liverpool Steam Tug Company	131 7	20 8	10 2	127	200	100	iron.
926	15,378	Prowler	ditto - „	„	- - ditto	124 0	19 9	10 6	113	179	80	iron.
927	6,381	Toward Castle	ditto - „	1854	E. Prendeville and others	106 2	15 5	7 6	50	79	50	iron.
928	16,166	Blazer	ditto - „	1856	Liverpool Steam Tug Company	150 4	23 1	13 1	212	337	180	iron.
929	16,167	Conqueror	ditto - „	„	Cruse & Downham	90 8	16 7	9 1	51	82	60	
930	16,188	Rhone	ditto - „	„	Bibby and others	257 2	34 6	22 5	943	1,387	180	iron, screw.
931	16,193	Favourite	ditto - „	„	George Craggs	92 8	18 2	9 4	64	101	60	
932	16,199	Koh-i-noor	ditto - „	1850	J. O. Lever	147 7	12 1	5 5	45	71	52	iron.
933	16,200	Sovereign	ditto - „	1856	John Erskine and others	177 9	25 2	12 9	298	439	90	iron, screw.
934	15,197	Albion	ditto - „	1834	J. L. Lloyd	115 5	16 3	10 3	78	124	60	
935	16,854	Saladin	ditto - „	1856	George Holt and others	183 9	24 3	14 3	347	510	60	iron, screw.
936	16,882	Danube	ditto - „	„	J. J. Bibby and others	257 3	34 6	22 5	942	1,386	180	iron, screw.
937	6,345	Italian	ditto - „	1855	Denny & Campbell	230 4	28 1	18 6	557	808	112	iron, screw.
938	17,739	Plynlymon	ditto - „	1856	T. & J. Vernon	125 5	20 5	11 1	142	209	50	iron, screw.
939	17,783	Valparaiso	ditto - „	„	Pacific Steam Navigation Company	234 1	29 1	14 4	839	1,060	320	iron.
940	24,181	Nymph	ditto - „	1851	Robert Hetherington	113 3	17 9	7 9	57	91	45	iron.
941	11,570	Despatch	ditto - 1857	1856	Liverpool Steam Tug Company	129 0	20 2	10 0	114	181	80	iron.
942	12,199	Gipsy	ditto - „	1857	W. D. Applebee and others	62 6	12 0	4 0	23	33	10	iron, screw.
943	14,633	Chieftain	ditto - „	1856	Thomas Redhead	99 2	17 4	9 4	56	89	50	
944	19,183	Annie	ditto - „	1857	F. D. P. Astley	86 0	13 0	6 5	27	40	25	iron, screw.
945	22,612	Montagu	ditto - „	1855	John Bacon and others	190 7	25 4	12 7	300	441	100	iron, screw.
946	19,571	Bridgwater	ditto - „	1857	Algernon Egerton	109 2	20 1	8 1	79	126	70	iron.
947	2,139	Paragon	ditto - „	1852	J. Seed	78 0	16 2	8 5	37	59	30	
948	19,969	James Kennedy	ditto - „	1857	John Bacon and others	175 0	27 5	17 2	418	535	70	iron, screw.
949	19,972	Resolute	ditto - „	„	New Steam Tug Company	161 0	24 8	13 5	86	375	200	iron.
950	20,132	Crimean	ditto - „	„	J. J. Bibby and others	261 7	36 0	22 0	1,002	1,473	252	iron, screw.
951	20,281	Sailor King	ditto - „	„	H. J. Ward and others	105 2	19 0	10 0	57	118	60	iron.
952	16,848	Fanny	ditto - „	1846	W. H. Ashwin	121 2	17 5	7 2	56	89	45	iron.
953	20,453	Retriever	ditto - „	1857	New Steam Tug Company	158 8	23 0	12 0	54	300	140	iron.
954	2,371	Victoria	ditto - „	1837	W. & T. Joliffe	114 3	21 4	10 9	118	193	100	
955	20,460	Agia Sofia	ditto - „	1857	G. M. Papayanni and others	259 0	34 0	22 0	977	1,437	200	iron, screw.
956	20,536	Storm King	ditto - „	„	H. J. Ward and others	137 0	21 0	11 1	100	199	100	iron.
957	20,541	Rescue	ditto - „	„	Liverpool Steam Tug Company	139 6	20 3	10 0	127	202	100	iron.
958	20,548	Teazer	ditto - 1858	„	Thomas Redhead	126 4	22 7	11 0	127	202	120	
959	20,765	Reliance	ditto - „	„	New Steam Tug Company	158 9	23 0	12 0	55	301	140	iron.
960	20,774	Earl of Ellesmere	ditto - „	„	Algernon Egerton	109 9	20 0	8 0	72	114	60	iron.
961	21,051	Agenoria	ditto - „	„	Sir S. M. Peto & Brassey	148 5	22 2	12 4	190	280	40	iron, screw.
962	21,054	United Kingdom	ditto - „	„	United Steam Tug Company	141 8	24 1	12 2	130	281	150	iron.

964	21,061	Brother Jonathan -	ditto -	„	„	United Steam Tug Company - - -	140	8	24	2	12	6	178	283	150	iron.
965	21,485	Lioness - - -	ditto -	„	1858	William & Thomas Joliffe - - - -	108	2	18	0	10	0	64	123	60	iron.
966	21,488	Wasp - - -	ditto -	„	„	Robert Hetherington - - - - -	131	9	19	0	8	5	82	130	70	iron.
967	21,492	Firefly - - -	ditto -	„	„	G. E. Dering - - - - - -	74	0	10	8	5	0	16	24	20	iron, screw.
968	10,003	Albert - - -	ditto -	„	1840	William Hilliar - - - - - -	124	6	20	8	7	9	82	131	80	iron.
969	14,544	Genova - - -	ditto -	„	1850	F. A. Tamplin and others - - - -	165	0	25	5	15	3	342	502	100	iron, screw.
970	3,712	Voltigeur - -	ditto -	„	1851	Henry Cruise and another - - - -	76	6	16	8	9	0	15	78	40	
971	13,388	Liffey - - -	ditto -	„	1855	United Steam Tug Company - - -	87	9	18	2	10	1	41	91	50	iron.
972	25,076	Albion - - -	ditto -	„	1858	Charles M'Iver - - - - - -	112	1	17	1	8	0	38	74	50	iron, screw.
973	6,040	Mary Agnes - -	ditto -	„	1848	William & Thomas Joliffe - - - -	93	0	17	7	8	8	51	81	40	
974	26,169	Callao - - -	ditto -	„	1858	Pacific Steam Navigation Company - -	235	0	29	0	14	5	841	1,062	320	iron.
975	25,747	Satellite - - -	ditto -	1859	1841	J. T. Cookney - - - - - -	139	1	16	8	7	5	67	107	80	iron.
976	1,608	Kangaroo - -	ditto -	„	1853	William Inman and others - - - -	257	4	36	2	19	9	1,196	1,719	300	iron, screw.
977	27,641	Plantagenet - -	ditto -	„	1859	Alfred Holt and others - - - -	202	4	27	2	16	4	472	695	70	iron, screw.
978	26,180	Lima - - -	ditto -	„	1851	Pacific Steam Navigation Company - -	258	0	30	2	17	0	1,166	1,461	320	iron.
979	27,643	Lion - - -	ditto -	„	1859	W. & T. Joliffe and another - - -	106	2	18	0	10	5	59	121	60	iron.
980	13,759	Bœotia - - -	ditto -	„	1856	J. J. Bibby and others - - - -	220	1	29	4	22	7	646	950	140	iron, screw.
981	27,649	Kong Brage - -	ditto -	„	1859	H. M. Lawrence - - - - -	102	5	17	1	7	7	53	84	40	iron.
982	17,490	Ionia - - -	ditto -	„	1856	J. J. Bibby and others - - - -	244	4	32	1	25	9	944	1,388	210	iron, screw.
983	20,451	Cairo - - -	ditto -	„	1857	- - ditto - - - - - -	256	2	35	0	22	0	996	1,465	210	iron, screw.
984	27,655	Delta - - -	ditto -	„	1859	Walter F. M'Gregor - - - - -	121	0	14	6	7	9	62	98	40	iron.
985	27,658	Fideliter - - -	ditto -	„	„	S. W. Ward and others - - - -	121	0	18	4	8	5	96	142	40	iron, screw.
986	2,368	Liver - - -	ditto -	„	1846	Messrs. Griffith and another - - -	107	6	19	7	10	1	89	142	100	iron.
987	27,441	Bogota - - -	ditto -	„	1852	Pacific Steam Navigation Company - -	258	1	30	0	17	5	1,160	1,461	320	iron.
988	27,931	Light of the River -	ditto -	„	1859	Walter F. M'Gregor - - - - -	175	0	18	6	9	1	129	204	80	steel.
989	27,936	Venetian - - -	ditto -	„	„	J. J. Bibby and another - - - -	270	5	33	7	22	8	1,025	1,508	225	iron, screw.
990	28,171	Bird of the Harbour -	ditto -	„	„	Walter F. M'Gregor - - - - -	100	0	21	9	9	3	83	132	90	iron.
991	13,746	Glasgow - - -	ditto -	„	1851	William Inman - - - - - -	262	3	36	0	18	0	1,154	1,697	400	iron, screw.
992	6,348	Edinburgh - -	ditto -	1860	1855	William Inman and others - - - -	300	5	39	8	19	0	1,494	2,197	450	iron, screw.
993	28,178	Sicilian - - -	ditto -	„	1859	J. J. Bibby and others - - - -	270	5	33	7	22	8	1,014	1,492	250	iron, screw.
994	22,567	Nile - - -	ditto -	„	1853	J. C. Reid - - - - - - -	82	6	17	0	9	0	44	70	35	iron, screw.
995	8,198	Khersonese - -	ditto -	„	1855	Z. C. Pearson and another - - - -	246	1	38	9	23	0	1,273	1,489	200	
996	28,182	Brackley - - -	ditto -	„	1859	Algernon Egerton - - - - -	116	0	17	6	7	6	77	122	50	iron.
997	28,184	San Carlos - -	ditto -	„	1860	Pacific Steam Navigation Company - -	199	8	30	2	18	6	444	652	270	iron, screw.
998	28,195	Guayaquil - -	ditto -	„	„	- - ditto - - - - - -	208	7	30	2	18	7	449	661	250	iron, screw.
999	18,781	Atlantic - - -	ditto -	„	1857	W. M. Moss and others - - - -	254	0	30	0	24	1	1,112	1,309	150	iron, screw.
1,000	28,606	Syrian - - -	ditto -	„	1860	J. J. Bibby and others - - - -	270	5	33	7	22	8	1,015	1,492	250	iron, screw.
1,001	28,608	Young England -	ditto -	„	„	F. A. Tamplin - - - - - -	76	0	14	7	4	2	24	39	18	screw.
1,002	28,612	King Eyo Honesty, 2d	ditto -	„	„	G. H. Horsfall - - - - - -	103	0	14	0	7	7	52	73	30	iron.
1,003	28,619	Wave of Life - -	ditto -	„	„	S. Chisholm, jun. and another - - -	87	1	16	9	9	0	22	77	35	
1,004	28,621	Emperor - - -	ditto -	„	„	W. & T. Joliffe and another - - -	133	7	22	1	10	9	106	208	90	iron.
1,005	28,630	Colonist - - -	ditto -	„	„	John Jones and another - - - -	153	6	22	5	12	9	236	347	60	iron, screw.
1,006	10,098	Great Conquest -	ditto -	„	1857	W. R. Chisholm and another - - -	98	0	18	4	10	4	26	110	60	
1,007	28,635	Helen - - -	ditto -	„	1860	Algernon Egerton - - - - -	140	0	20	0	8	3	39	154	100	iron.
1,008	28,638	Morro - - -	ditto -	„	„	Pacific Steam Navigation Company - -	119	6	20	1	7	9	68	132	50	steel.
1,009	14,600	Vesper - - -	ditto -	„	1850	W. & T. Joliffe - - - - - -	151	2	17	6	7	8	76	121	85	iron.
1,010	28,647	Denbigh - - -	ditto -	„	1860	Fenton Mangnall - - - - -	182	6	22	5	8	7	163	258	100	iron.
1,011	16,873	Tubal Cain - -	ditto -	„	1853	G. S. Sanderson - - - - - -	154	6	23	3	12	4	195	287	50	iron, screw.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,012	6,909	Victory	Liverpool 1860	1844	Charles Johnston	93 4	16 0	9 0	56	89	40	
1,013	4,656	Hope	ditto „	1853	African Steam Ship Company	206 8	30 1	- -	737	1,084	180	iron, screw.
1,014	17,842	Lion	ditto „	1856	Fenton Mangnall	116 3	20 0	11 3	87	163	80	iron.
1,015	17,193	Berlin	ditto „	1857	General Steam Navigation Company	226 5	28 0	- -	487	740	420	iron.
1,016	29,152	Talisman	ditto „	1860	Alfred Holt and others	212 6	28 1	16 9	581	738	80	iron, screw.
1,017	23,921	Sarah Sands	ditto „	1846	Edward Bates and others	218 0	31 8	- -	819	1,150	150	iron, screw.
1,018	29,158	Espigador	ditto „	1860	T. B. Gibbons	119 0	18 7	7 0	93	114	30	iron, screw.
1,019	29,159	Cognac	ditto „	„	James Harrison and others	170 0	25 1	16 4	376	490	70	iron, screw.
1,020	28,625	Deerhound	ditto 1861	1858	John Lancaster	128 6	16 6	- -	99	125	56	iron, screw.
1,021	29,611	Hercules	ditto „	1861	Cruse & Downham	112 6	19 6	10 2	73	152	70	iron.
1,022	29,615	Rover	ditto „	„	New Steam Tug Company	115 6	19 6	10 2	76	156	70	iron.
1,023	29,620	Grecian	ditto „	„	J. J. Bibby and others	310 0	34 0	24 0	1,555	1,854	400	iron, screw.
1,024	29,623	Rosetta	ditto „	1860	W. F. M'Gregor	191 4	27 4	7 4	234	300	60	iron, screw.
1,025	29,624	Damietta	ditto „	„	- - ditto	191 4	27 4	7 3	227	277	60	iron.
1,026	29,689	Amalia	ditto „	1861	G. M. Papayanni and others	277 7	37 4	25 6	1,284	1,824	250	iron, screw.
1,027	1,989	Tiber	ditto „	1851	J. J. Bibby and others	274 0	29 3	19 4	980	1,157	250	iron, screw.
1,028	29,640	Speedwell	ditto „	1861	John Prendeville and others	121 0	18 3	8 7	81	131	64	iron.
1,029	29,647	Memnon	ditto „	„	William Rathbone, jun., and others	253 6	32 6	23 0	927	1,209	150	iron, screw.
1,030	29,648	Italian	ditto „	„	J. J. Bibby and others	310 0	34 0	24 0	1,560	1,859	250	iron, screw.
1,031	42,594	Eastham Fairy	ditto „	„	H. M. Lawrence	125 0	19 2	7 7	79	115	60	iron.
1,032	43,552	Secretary	ditto „	1847	John Seed and another	93 1	17 0	9 1	37	100	56	
1,033	42,597	City of New York	ditto „	1861	William Inman	335 5	40 3	18 0	1,679	2,360	550	iron, screw.
1,034	42,607	Swiftsure	ditto „	„	Henry Gough	125 0	19 2	7 7	79	115	60	iron.
1,035	42,608	Bermuda	ditto „	„	Edwin Haigh	216 2	29 0	20 4	717	897	135	iron, screw.
1,036	16,868	The Test	ditto „	1855	Joseph Mondel	108 9	14 1	9 7	53	78	40	iron, screw.
1,037	15,468	Greenock	ditto „	1842	John Cowle and others	81 7	19 0	7 7	57	91	30	iron.
1,038	6,385	Glasgow	ditto „	1841	- - ditto	81 8	19 1	7 1½	55	88	35	iron.
1,039	42,637	Island Queen	ditto „	1861	Thomas Gerard and another	141 5	23 1	11 2	120	255	110	iron.
1,040	10,565	Etna	ditto „	1855	William Inman and others	308 6	37 4	19 0	1,494	2,120	450	iron, screw.
1,041	42,642	Dragon	ditto „	1861	P. E. Hinde	160 0	22 6	12 8	257	315	60	iron, screw.
1,042	4,908	Eagle	ditto „	1845	George Gouldin	93 2	20 5	36 0	93	135	70	iron.
1,043	42,648	Egyptian	ditto „	1861	J. J. Bibby and others	335 0	34 2	24 0	1,689	1,986	260	iron, screw.
1,044	16,224	Express	ditto „	1857	Timothy Hughes	117 8	19 2	8 0	108	129	32	iron, screw.
1,045	44,148	Slasher	ditto „	1861	Liverpool Steam Tug Company	133 3	21 2	11 0	109	196	90	iron.
1,046	44,151	Askalon	ditto „	„	Alfred Holt	228 2	30 2	18 7½	631	875	100	iron, screw.
1,047	23,906	Calpe	ditto „	1852	J. J. Bibby and others	297 2	29 0	20 0	1,134	1,347	220	iron, screw.
1,048	44,159	Colonia	ditto „	1861	H. M. Laurence and another	99 6	15 0	7 3	52	80	30	iron, screw.
1,049	44,170	Peru	ditto „	„	Pacific Steam Navigation Company	260 4	32 1	15 2	904	1,307	360	iron.
1,050	29,154	Economist	ditto „	1860	R. G. Bushby	191 0	26 0½	17 6	389	572	100	iron, screw.

1,052	2,373	President	ditto	1859	1839	William Bowen	114	4	21	4	11	4	113	179	100		
1,053	5,896	*Post Boy	Lowestoft	1852	1843	W. B. Roe and others	69	7	11	9	5	8	17	35	16		
1,054	14,737	*Royal Victoria	ditto	1853	1837	J. O. Lever	187	0	22	8	15	4	438	615	250		
1,055	18,636	*Arab	ditto	„	1835	North of Europe Steam Navigation Company	130	6	22	5	13	2	131	303	150		
1,056	5,892	*Imperial	ditto	1854	1851	Lowestoft Railway and Harbour Company	72	6	14	5	8	7	21	66	28		
1,057	5,891	*Pursuit	ditto	„	1843	- - ditto	62	1	14	0	7	7	12	46	20		
1,058	5,893	*Cumberland	ditto	„	1847	Holmes & Hanson	197	0	24	2	13	4	306	518	300	iron.	
1,059	10,096	Powerful	ditto	1859	1856	J. B. Owen	84	2	18	1	9	0	20	81	40		
1,060	12,602	*Norfolk Hero	Maryport	1853	1848	J. Johnston	73	3	14	9	8	7	19	65	33		
1,061	12,603	*Rambler	ditto	„	1846	T. Brown and others	69	9	14	0	8	0	15	55	28		
1,062	12,601	*Senhouse	ditto	1855	1854	Joseph Mark	80	3	16	2	9	3	32	95	50		
1,063	18,261	Maryport	ditto	1859	1858	- - ditto	108	0	18	7	9	7	34	122	70	iron.	
1,064	19,733	Harriet	Middlesbro'	1861	1857	H. W. F. Bolckow and another	199	4	25	1	14	7	401	496	70	iron, screw.	
1,065	28,654	Ann	ditto	„	1860	- - ditto	210	0	28	6	17	5	467	688	130	iron, screw.	
1,066	19,482	Middlesbrough	ditto	„	1857	- - ditto	142	6	20	1	10	9	161	237	40	iron, screw.	
1,067	7,754	Tartar	ditto	„	1853	William Fallows and others	79	2	16	5	8	0	21	61	30		
1,068	7,318	Firebrand	ditto	„	1847	- - ditto	74	9	16	1	8	6	15	60	34		
1,069	6,333	Commodore	ditto	„	„	- - ditto	85	0	16	4	8	7	26	69	40		
1,070	23,741	Belmont	ditto	„	1853	Stockton and Darlington Railway Company	81	9	17	0	9	0	19	73	35		
1,071	28,652	Arrow	ditto	„	1860	F. J. Leach and another	94	1	17	7	9	4	23	89	48		
1,072	4,985	Catherine	ditto	„	1842	George Dixon and another	71	3	13	0	6	1	14	33	16		
1,073	26,957	Little Western	ditto	„	1844	Jane Dixon	77	4	11	6	6	1	12	32	14		
1,074	29,481	Onward	ditto	„	1861	H. W. F. Bolckow and others	202	5	26	4	17	5	508	662	100	iron, screw.	
1,075	6,234	Jane and Phœbe	ditto	„	1852	Stockton and Darlington Railway Company	72	7	15	9	8	2	13	50	35		
1,076	29,483	River Queen	ditto	„	1861	William Duncan and others	95	1	15	2	6	4	46	65	20	iron.	
1,077	16,220	Ironmaster	ditto	„	1856	H. W. F. Bolckow and another	178	5	24	5	13	0	268	394	160	iron, screw.	
1,078	15,994	Margaret	ditto	„	1859	F. J. Leach and another	69	8	15	9	8	1	10	55	30		
1,079	27,689	Pembrokeshire	Milford	1860	1860	Thomas Jackson and another	71	8	15	4	7	5	28	41	24		
1,080	- -	*Ann and Jane	Newcastle	1825	1823	John Johnston	67	6 in.	16	11 in.	9	1 in.	27	—	—		
1,081	- -	*Majestic	ditto	1826	1826	Robert Johnston and others	56	2 in.	14	8½ in.	7	11 in.	21	—	—		
1,082	25,362	*Gemariah	ditto	1834	1834	T. Reay and others	58	10 in.	14	7 in.	7	10 in.	28	- -	16		
1,083	- -	*Ocean	ditto	„	„	William Innis and another	57	10 in.	12	4 in.	6	0	18	—	—		
1,084	6,240	*Endeavour	ditto	1838	1838	James Blakey and others	61	6	13	5	7	4	18	48	23		
1,085	11,894	*John and William	ditto	„	„	John Cooper and others	70	8	14	5	8	2	23	64	30		
1,086	- -	*X. L.	ditto	„	1827	Ralph Wilson	44	6 in.	11	0	6	4 in.	11	—	—		
1,087	- -	*Prince Albert	ditto	1842	1842	Thomas Ellis	66	2	13	4	7	8	15	52	—		
1,088	7,267	*Laurel	ditto	1843	„	Matthew Harrison and another	70	0	11	7	6	1	19	38	15		
1,089	- -	*William and Mary	ditto	„	1843	William Tase	73	7	15	6	8	7	25	76	—		
1,090	7,252	*Ellen Browne	ditto	„	„	Harrison and others	68	0	15	0	8	6	22	71	27		
1,091	- -	*Don	ditto	1845	1845	John Wilson	59	5	12	7	7	0	13	37	—		
1,092	- -	*Admiral	ditto	„	1843	Anthony Strong and others	73	3	16	0	8	7	23	76	—		
1,093	- -	*Mary	ditto	„	1833	William Brown and others	52	2	12	4	6	8	11	32	—		
1,094	7,627	*Joseph and William	ditto	„	1845	J. Conley	63	7	12	7	7	9	14	45	20		
1,095	5,000	*Hotspur	ditto	1846	1838	William Minto	61	5	13	3	7	3	13	42	15		
1,096	- -	*Ranger	ditto	1847	1847	Anthony Strong	83	4	17	2	9	3	20	92	—		
1,097	4,999	*Margaret	ditto	„	1839	John Forster and another	55	7	12	8	6	9	13	37	20		
1,098	4,997	*Undaunted	ditto	„	1838	Henry Hindmarsh and others	63	2	13	3	7	3	18	48	20		
1,099	- -	*Wonder	ditto	1848	1848	John Forster	73	0	14	5	8	4	24	65	25		

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,100	6,911	*Elswick	Newcastle - 1848	1848	John Newton and others	69 0	14 0	8 4	14	55	40	
1,101	15,257	*Sceptre	ditto - 1849	1825	Thomas Errington	63 3	13 6	7 8	16	53	25	
1,102	3,785	*Vespers	ditto - 1850	1841	William Burrell and another	59 5	11 8	6 3	14	32	10	
1,103	22,565	*Industry	ditto - 1852	1852	George Reed	71 7	13 3	7 4	10	42	—	
1,104	17,039	*Ocean Bride	ditto - 1853	1853	John Forster	68 2	13 2	7 2	21	48	—	
1,105	3,693	*Robert and Jane	ditto - ,,	1847	William Nelson and others	65 6	11 3	6 0	13	31	14	
1,106	26,276	*John Bowes	ditto - ,,	1852	C. M. Palmer and others	148 9	25 7	15 6	375	486	70	
1,107	22,585	*Wanderer	ditto - ,,	1843	D. Cunningham	70 5	11 6	6 2	15	35	14	
1,108	26,959	Anne	ditto - ,,	1853	John Leek	63 0	11 5	6 6	12	31	14	
1,109	24,495	William	ditto - ,,	1842	William Charlton and another	72 0	11 4	6 2	13	34	15	
1,110	26,950	*Wonder	ditto - 1854	1854	T. Forster	72 2	13 7	8 0	10	55	23	
1,111	1,970	*Blessing	ditto - ,,	1838	Heads & Forrest	59 9	13 7	7 7	12	47	—	
1,112	22,606	Waterman	ditto - ,,	1854	J. & R. Stark	65 3	13 4	7 3	11	37	18	
1,113	4,335	*Black Sea	ditto - 1855	,,	C. Palmer and another	163 4	26 6	15 1	424	527	80	iron, screw.
1,114	14,507	*Normanby	ditto - ,,	1855	C. M. & W. H. Palmer	150 0	22 9	13 0	267	353	50	iron, screw.
1,115	30,417	*Victoria	ditto - ,,	,,	William Smith	119 4	22 2	14 0	78	274	180	
1,116	22,802	Lord Raglan	ditto - ,,	,,	John Ormston and others	190 3	27 1	13 9	351	516	86	iron, screw.
1,117	26,965	Carbon	ditto - ,,	,,	Thomas Headley	174 7	27 6	19 0	399	587	80	iron, screw.
1,118	3,279	Otter	ditto - ,,	,,	John Ormston and another	188 2	25 0	15 7	322	473	80	iron, screw.
1,119	7,263	Brigadier	ditto - ,,	,,	William Laing and others	170 3	24 7	13 6	302	444	70	iron, screw.
1,120	7,265	Stella	ditto - ,,	,,	T. Routledge and another	74 4	14 7	7 6	11	49	24	
1,121	7,269	Olive	ditto - 1856	1848	John Swanston and others	75 4	13 8	6 7	14	39	18	
1,122	7,287	Tyne	ditto - ,,	1856	George Palmer and others	169 9	26 7	15 8	423	521	70	iron, screw.
1,123	10,178	Beeswing	ditto - ,,	1842	James Nicholson	72 0	12 2	6 0	14	33	18	
1,124	7,299	Amazon	ditto - ,,	1856	John Batey	72 0	13 9	7 1	12	42	20	
1,125	14,503	Alma	ditto - ,,	1855	R. Moore	73 0	13 9	7 0	12	41	20	
1,126	14,510	Kitten	ditto - ,,	1856	Laing & Davies	50 0	17 1	5 9	11	25	20	iron.
1,127	14,506	Blaydon	ditto - ,,	,,	Cowan & Douglass	72 9	14 4	7 6	10	45	20	
1,128	16,790	Terror	ditto - 1857	1857	G. & C. M. Palmer	91 3	16 7	8 1	33	79	45	iron.
1,129	12,908	Wards	ditto - ,,	,,	Robert Redhead and another	77 7	15 1	8 1	12	54	25	
1,130	15,650	Jarrow	ditto - ,,	,,	G. & C. M. Palmer	91 4	15 4	7 0	25	63	30	
1,131	15,654	Lifeguard	ditto - ,,	,,	Laing & Davies	188 8	25 6	13 0	334	491	80	iron, screw.
1,132	19,382	John and Mary	ditto - ,,	,,	J. & J. Hopper	70 9	14 0	7 4	11	44	20	
1,133	7,255	William Cargill	ditto - ,,	1850	Crone & Archer	67 5	12 5	7 1	10	35	15	
1,134	19,738	Rouen	ditto - ,,	1857	Palmer & Taylor	204 4	30 2	14 0	490	669	80	iron, screw.
1,135	20,255	Felling	ditto - ,,	,,	Jonathan Hall and others	69 2	13 7	7 6	11	40	20	
1,136	20,256	Bonnie Dundee	ditto - ,,	,,	James Armour	71 8	14 7	7 7	10	41	24	
1,137	20,258	Ocean Bride	ditto - ,,	,,	R. King and others	74 0	15 0	7 4	11	45	20	
1,138	20,741	Sir Colin Campbell	ditto - 1858	1858	G. R. Turnbull and another	73 8	14 9	7 0	13	47	22	

1,139	20,742	British Queen																
1,140	20,744	Mystery	ditto	-	„	1858	William Brown and others	-	-	-	74	4	14	7				
1,141	21,274	Robert Airey	ditto	-	„	„	Michael Wheldon and others	-	-	-	80	7	16	9	8	0	15	64	30	
1,142	21,276	Gleaner	ditto	-	„	„	Jamieson, Bone and others	-	-	-	71	0	14	0	7	5	9	42	20	
1,143	21,286	Bon Accord	ditto	-	„	„	Lancelot Newton	-	-	-	74	0	14	9	7	0	11	45	20	
1,144	21,287	Venture	ditto	-	„	„	G. Elliott	-	-	-	76	7	15	0	8	4	9	52	27	
1,145	2,072	Honor	ditto	-	„	1853	Thomas Bright and others	-	-	-	69	4	13	9	7	0	11	38	18	
1,146	21,288	Lomonosoff	ditto	-	„	1858	Thomas Henderson	-	-	-	109	4	19	9	10	0	63	122	60	iron.
1,147	21,290	Edward Hawkins	ditto	-	„	„	Thomas Hodson and others	-	-	-	227	5	32	0	17	5	798	968	90	iron, screw.
1,148	21,291	Benwell	ditto	-	„	„	Robert Sharp and another	-	-	-	67	0	13	5	7	0	10	38	18	,
1,149	26,953	Volunteer	ditto	-	1859	1854	William Laing & Stephens	-	-	-	162	4	21	6	13	4	235	346	75	iron, screw.
1,150	26,874	Berbice	ditto	-	„	1859	Hugh Sproston and others	-	-	-	181	5	21	6	9	0	178	282	120	iron.
1,151	26,875	Rosamond	ditto	-	„	„	John Batey and others	-	-	-	71	7	14	5	7	0	12	47	21	
1,152	4,988	Pomona	ditto	-	„	1849	Robert Jull and others	-	-	-	64	3	13	1	6	0	11	33	18	
1,153	26,876	Pasha	ditto	-	„	1859	Sir Samuel Cunard, Bart.	-	-	-	92	0	25	3	8	4	99	179	25	iron, screw.
1,154	26,877	Towneley	ditto	-	„	1858	Addison, Potter and others	-	-	-	66	1	14	1	6	6	13	43	26	iron.
1,155	26,878	Boston	ditto	-	„	1859	J. D. Bootiman	-	-	-	71	0	14	3	7	7	12	47	24	
1,156	26,880	Louise Crawshay	ditto	-	„	„	John Rogerson	-	-	-	110	8	14	1	6	5	23	63	30	iron.
1,157	27,896	Cygnet	ditto	-	„	„	John Woolston and another	-	-	-	70	0	14	2	7	0	10	43	20	
1,158	27,897	Dart	ditto	-	„	1849	Thompson, Hutchinson and another	-	-	-	71	1	13	9	6	8	9	36	18	
1,159	28,314	Charlotte Anne Williamson.	ditto	-	1860	1860	John Rogerson	-	-	-	116	8	16	5	6	0	68	108	40	iron.
1,160	28,315	Pilot	ditto	-	„	„	W. T. Turnbull and another	-	-	-	82	4	16	3	8	9	19	67	30	
1,161	28,317	Willington	ditto	-	„	„	William Adamson	-	-	-	99	3	19	1	7	0	57	84	20	screw.
[illegible]	28,320	Port Mulgrave	ditto	-	„	„	C. M. Palmer	-	-	-	121	4	25	2	11	0	160	235	40	iron, screw.
1,163	28,323	Garibaldi	ditto	-	„	„	John Rogerson	-	-	-	89	6	16	0	5	8	44	71	20	iron.
1,164	28,325	Hero	ditto	-	„	„	J. P. Nicholson	-	-	-	70	8	13	0	6	3	13	33	18	
1,165	29,101	Rifleman	ditto	-	„	„	James Scope and another	-	-	-	77	5	15	2	8	3	14	53	28	
1,166	10,073	Adur	ditto	-	„	1855	W. J. Lockerby	-	-	-	79	4	16	3	8	9	13	64	35	
1,167	29,103	Rangoon	ditto	-	„	1860	C. M. Palmer	-	-	-	267	2	37	0	21	0	1,334	1,585	250	iron, screw.
1,168	27,898	Onward	ditto	-	„	„	William Armstrong	-	-	-	76	2	15	3	8	1	11	55	25	
1,169	22,618	Forrester	ditto	-	„	1848	John Dobson and others	-	-	-	75	0	13	0	6	0	11	37	18	
1,170	29,105	Mary	ditto	-	„	1860	Thomas Bright	-	-	-	71	4	14	2	7	6	17	45	30	
1,171	29,106	Sentinel	ditto	-	„	„	Laing & Davies	-	-	-	192	0	24	3	13	0	390	518	100	iron, screw.
1,172	29,107	Malacca	ditto	-	„	„	C. M. Palmer	-	-	-	267	2	37	0	21	0	1,354	1,610	250	iron, screw.
1,173	19,385	Scottish Maid	ditto	-	„	„	Charles Stein	-	-	-	76	1	15	7	8	2	12	56	26	
1,174	29,108	North Star	ditto	-	1861	1861	Henry Carr	-	-	-	74	0	15	6	8	0	18	54	25	
1,175	22,642	Newcastle	ditto	-	„	1847	William Gilroy	-	-	-	75	9	13	6	6	2	12	36	18	
1,176	3,621	Chanticleer	ditto	-	„	1853	John Ormston and others	-	-	-	186	8	26	1	16	1	421	538	86	iron, screw.
1,177	29,114	Harry Clasper	ditto	-	„	1861	John Rogerson and another	-	-	-	115	6	16	7	7	5	70	103	40	iron.
1,178	2,174	Saint Clare	ditto	-	„	1853	Robert Forster	-	-	-	70	0	13	9	7	0	11	36	18	
1,179	29,119	Punch	ditto	-	„	1856	C. M. Palmer	-	-	-	60	8	15	4	5	7	20	37	20	iron.
1,180	29,120	Battalion	ditto	-	„	1861	Laing & Davies	-	-	-	208	3	28	2	15	6	557	678	70	iron, screw.
1,181	29,121	Anthony Nichol	ditto	-	„	„	Thomas Thompson and others	-	-	-	71	5	15	3	7	7	14	45	21	
1,182	26,963	Express	ditto	-	„	1848	Robert Tait and others	-	-	-	72	3	13	3	6	5	10	35	18	
1,183	29,122	Percy	ditto	-	„	1861	Dennis Cunningham	-	-	-	66	8	12	5	6	8	10	33	18	
1,184	29,123	Fanny	ditto	-	„	„	D. T. Stewart	-	-	-	69	6	11	5	6	4	15	25	12	screw.
1,185	29,124	Iberia	ditto	-	„	„	James Cochrane	-	-	-	135	0	19	0	10	0	139	186	45	iron, screw.
1,186	43,591	Alderman Ridley	ditto	-	„	„	R. B. Trotter	-	-	-	75	1	15	3	8	4	17	54	74	

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January, 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,187	43,593	Elfin	Newcastle - 1861	1861	John Toward and another	61 2	13 0	5 7	16	29	14	iron, screw.
1,188	43,595	Wansbeck	ditto - ,,	,,	Edmund Crawshay	97 5	16 3	5 6	37	56	30	iron.
1,189	3,620	Chevy Chase	ditto - ,,	1848	John Ormston and others	161 2	24 1	13 0	254	332	80	iron, screw.
1,190	22,574	Elba	ditto - ,,	1855	General Steam Navigation Company	200 5	28 0	16 5	448	660	80	iron, screw.
1,191	3,515	Earl Percy	ditto - ,,	1849	John Ormston and others	164 9	24 5	14 0	291	376	80	iron, screw.
1,192	8,754	Brothers	ditto - ,,	1854	Robert Redhead and another	71 5	14 9	8 0	12	- -	30	
1,193	43,597	Briton	ditto - ,,	1861	George Hope and others	71 8	14 6	7 2	14	41	70	
1,194	43,598	Prince of Wales	ditto - ,,	,,	Charles Carr	75 3	15 3	8 1	15	50	22	
1,195	10,170	Chesapeake	ditto - ,,	1853	John Rogerson	74 8	15 2	8 2	40	64	25	
1,196	10,691	*Phœnix	Newport - 1851	1848	Charles Hall	83 9	15 7	9 2	36	92	50	
1,197	13,002	Carrs	ditto - 1855	1852	Samuel Homfray	72 5	13 9	7 7	19	54	35	
1,198	26,800	Thomas Powell	ditto - 1856	1856	H. W. Schneider and others	161 6	25 5	14 6	272	401	70	iron, screw.
1,199	13,864	Duke of Buccleugh	Penzance - 1859	1830	W. M. Mathews	77 1	13 3	7 8	20	49	15	
1,200	5,734	*Queen	Plymouth - 1846	1845	J. H. Gill and others	68 5	13 5	7 0	29	52	28	
1,201	6,700	*Alert	ditto - 1852	1837	Saltash Steam Packet Company	9 0	11 2	5 4	24	43	28	
1,202	5,669	*Lord Yarborough	ditto - ,,	1826	James Blackmore and others	86 2	12 3	9 3	36	79	60	
1,203	5,722	Gipsy	ditto - 1855	1845	St. Germans and Saltash Steam Boat Company.	72 0	12 2	6 5	29	46	22	iron.
1,204	23,310	Emperor	ditto - 1856	1842	J. H. Gill and others	89 1	14 0	6 9	46	73	32	iron.
1,205	19,786	Fairy	ditto - 1857	1857	St. Germans and Saltash Steam Boat Company.	98 9	14 4	6 0	37	59	40	
1,206	15,975	Wellington	ditto - ,,	1856	Gill and others	84 0	17 0	9 2	13	75	40	
1,207	13,861	Earl of Malmesbury	ditto - 1858	1825	Earl of Mount Edgcumbe	107 4	17 2	9 7	84	133	50	
1,208	22,061	Sir Walter Raleigh	ditto - ,,	1858	William Langdon and others	168 5	20 6	10 0	150	239	100	iron.
1,209	9,066	Mystery	ditto - 1859	1845	W. S. Andrews	79 5	11 0	7 0	24	36	40	iron, screw.
1,210	5,615	Sir Francis Drake	ditto - ,,	1823	- - ditto	126 6	18 7	11 1	113	179	70	
1,211	21,528	Princess	ditto - 1861	1844	J. H. Gill and others	110 5	14 0	7 5	44	69	40	iron.
1,212	13,271	*Purbeck	Poole - 1850	1850	W. J. Pike and another	72 0	13 0	6 7	22	47	20	iron.
1,213	19,683	Her Majesty	Portsmouth 1851	,,	Portsmouth and Ryde Steam Packet Company.	129 1	14 0	7 2	49	75	40	iron.
1,214	19,687	*Princess Royal	ditto - ,,	,,	- - ditto	107 6	13 2	8 3	57	87	40	
1,215	19,684	*Prince of Wales	ditto - ,,	,,	- - ditto	107 6	13 2	8 3	57	87	40	
1,216	19,685	*Prince Albert	ditto - ,,	1847	- - ditto	96 0	12 4	8 1	46	67	50	
1,217	19,680	*Ranger	ditto - 1853	1851	William Ray	72 5	14 8	8 6	22	44	35	
1,218	15,987	Ursa Major	ditto - 1856	1856	- - ditto	90 3	17 0	9 0	21	82	45	
1,219	19,200	Pleiades	ditto - 1858	1858	- - ditto	84 3	17 0	8 9	16	78	40	iron.
1,220	27,721	Prince Consort	ditto - 1859	1859	Portsmouth and Ryde United Steam Packet Company.	154 5	15 1	6 7	65	104	60	iron.
1,221	17,230	Prince of Wales	Preston - 1843	1842	Frederick Kemp and others	159 6	24 6	13 5	279	466	260	

1,223	14,922	*Alice	ditto	„	1843	Alsop & Smith	56	0	13	5	5	5	10	24	10	
1,224	19,965	*Stour	Ramsgate	1848	1848	Corporation of Sandwich	57	8	12	5	6	6	10	31	19	
1,225	9,410	*Lee	Rochester	1840	1840	William Lee	89	4	16	8	6	2	46	71	24	
1,226	20,086	City of Rochester	ditto	1849	1849	Giles and Boucher	123	0	14	0	7	7	46	73	40	
1,227	20,087	*Princess Royal	ditto	1851	1844	- - ditto	106	0	13	5	6	6	46	68	32	iron.
1,228	25,451	*Alma	ditto	1855	1855	- - ditto	118	4	12	7	6	6	48	69	32	
1,229	27,613	Queen	ditto	1859	1859	William Giles and another	120	5	13	5	6	8	43	69	32	iron.
1,230	12,184	Caledonia	ditto	1860	1832	William Haymen	57	4	14	2	7	4	23	37	25	
1,231	14,882	Don	ditto	1861	1851	William Giles and another	76	4	15	2	7	9	18	54	30	.
1,232	20,230	*Erin	Rye	1854	„	Commissioners of Rye Harbour	74	5	13	4	7	3	21	52	28	
1,233	13,401	Express	St. Ives	1848	1847	Bristol and Hayle Steam Packet Company	141	0	21	5	10	4	102	206	100	
1,234	3,950	Queen	ditto	1852	1852	- - ditto	158	6	21	2½	11	3	178	295	160	iron.
1,235	19,498	Fame	Scarborough	1857	1857	Jeremiah Hudson	139	6	22	3	11	8	117	222	100	iron.
1,236	7,802	Xantho	ditto	1860	1848	William Spong	114	0	17	8	8	4	44	97	60	iron.
1,237	19,050	Little Western	Scilly	1858	1858	T. J. Buxton and others	115	9	18	5	9	4	67	115	35	iron, screw.
1,238	2,266	*Shannon	Shields	1848	1848	J. Mouat and another	67	5	14	0	8	1	17	52	22	
1,239	14,572	*Waterston	ditto	„	„	E. M. Matthews	66	3	13	4	8	1	16	51	23	
1,240	7,650	*Morleys	ditto	1849	1827	T. Sarginson	59	8	12	2	7	2	19	46	16	
1,241	2,449	*Britannia	ditto	„	1849	George Redhead	71	4	14	8	8	5	19	63	30	
1,242	10,172	*Conquest	ditto	1850	1848	Stephenson Chisholm and others	72	8	14	6	8	6	18	62	29	
1,243	4,990	*Tyne	ditto	„	1843	North and South Shields Ferry Company	71	7	20	4	8	1	37	106	36	
1,244	4,991	*Durham	ditto	„	1830	- - ditto	67	4	15	8	8	1	22	82	30	
1,245	4,989	*Northumberland	ditto	„	1837	- - ditto	65	9	16	6	8	4	18	74	33	
1,246	2,443	*Blyth	ditto	1851	1851	W. J. Sidney and another	71	0	14	8	8	3	23	63	26	
1,247	26,138	*Victory	ditto	„	„	John Pletts	78	3	15	8	8	8	23	77	36	
1,248	2,020	*Grace Darling	ditto	„	„	Willam Cowry	61	6	10	9	6	4	11	28	12	
1,249	10,168	*Conqueror	ditto	„	„	William Hall	75	0	14	5	8	7	25	69	30	
1,250	40,171	*Tam O'Shanter	ditto	„	„	Robert Chisholm	74	8	14	6	8	9	19	66	30	
1,251	6,224	*Pilot	ditto	1852	1831	J. P. Rennoldson	53	4	13	3	7	6	14	41	18	
1,252	14,432	*Britannia	ditto	„	1852	Edward Pearson	74	7	15	1	8	8	26	72	33	
1,253	12,100	*Vigilant	ditto	„	1851	Marquis of Titchfield	78	0	16	2	9	1	33	89	50	
1,254	- -	*Henry Wright	ditto	„	1852	H. G. Graham and another	93	8	18	0	9	7	42	113	50	
1,255	7,643	*Roberts and Ann	ditto	„	1843	J. A. Hall	66	2	14	3	8	0	18	57	26	
1,256	26,140	*Welcome	ditto	„	1847	Edward Scott	67	2	14	4	8	1	14	55	29	
1,257	10,174	*Avenger	ditto	1853	1848	A. N. Coe	75	9	14	9	8	8	22	54		
1,258	15,259	*John Lee	ditto	„	1847	G. Stokel	60	0	12	9	7	1	10	36	18	
1,259	7,633	*Test	ditto	„	1853	A. R. Grant	79	5	15	5	9	2	31	82	35	
1,260	10,179	*Economy	ditto	„	1848	William Minto	65	0	13	8	7	9	17	51	26	
1,261	4,973	*Margaret and Mary	ditto	„	1837	J. Pearson	57	8	14	1	7	2	14	43	20	
1,262	10,169	*Jubilee	ditto	1854	1847	Thompson & Co.	66	4	13	6	8	1	14	49	22	
1,263	10,166	*Lees	ditto	„	1853	Robert Lee	73	0	14	3	8	5	21	62	25	
1,264	10,165	*Harmony	ditto	„	1847	J. & W. Dial	66	1	13	2	8	0	14	48	20	
1,265	2,083	*Brilliant	ditto	„	1849	Brown & Co.	62	2	12	3	7	0	14	38	13	
1,266	7,642	*George and Jane	ditto	„	1833	Matthew and Joseph Legg	60	7	10	6	6	0	14	30	10	
1,267	7,645	*Albion	ditto	„	1852	Matthew Wharrier and others	69	8	14	6	8	2	18	59	25	
1,268	26,142	*Jabez Bunting	ditto	„	1849	James Douglas, jun.	71	3	14	3	8	5	19	60	35	
1,269	2,450	*Netherton	ditto	„	1838	A. Wardropper and another	60	5	13	8	7	3	13	45	20	
1,270	2,165	*Rainbow	ditto	„	1854	Thomas Heppell and others	68	6	13	0	7	2	17	44	20	

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,271	- -	*Queen - - -	Shields - 1854	1854	William Scott - - - - - - -	81 2	13 6	7 4	63	83	- -	iron.
1,272	15,258	*Active - - -	ditto - „	1836	William & John Armstrong - - -	63 3	13 6	7 5	13	48	25	
1,273	2,036	*Rob Roy - -	ditto - 1855	1855	James Cowperthwaite - - - - -	73 2	13 3	7 5	20	50	20	
1,274	2,131	Bull Dog - -	ditto - „	„	Richard Swan - - - - - -	80 0	16 7	8 7	51	81	40	
1,275	2,129	Dragon - - -	ditto - „	1826	- - ditto - - - - - -	65 0	21 5	7 0	52	82	35	
1,276	2,166	Brothers - - -	ditto - „	1855	George Heads and others - - - -	82 0	16 0	8 0	28	81	35	
1,277	2,115	William and Mary -	ditto - „	„	Richard Dixon - - - - - -	71 2	14 6	7 5	21	54	20	
1,278	2,155	British Warrior -	ditto - „	„	William Bell and others - - - -	76 3	15 0	8 1	27	65	26	
1,279	2,299	Royal Albert - -	ditto - „	„	William Bailey - - - - - -	83 0	17 0	9 0	18	75	40	
1,280	2,312	Pelissier - - -	ditto - „	„	George Gibson and others - - - -	102 0	18 5	10 0	64	118	60	iron.
1,281	4,998	Tarset - - -	ditto - „	1835	William Moore - - - - - -	56 3	14 6	7 0	7	38	18	
1,282	22,641	Princess - - -	ditto - „	1841	H. Stewart and another - - - -	72 6	12 4	6 7	15	41	16	
1,283	7,630	General Pelissier -	ditto - 1856	1855	Marshall Tweddell - - - - -	89 0	18 0	9 0	19	89	55	
1,284	12,362	Powerful - -	ditto - „	1856	William Bailey - - - - - -	84 0	17 2	9 0	19	75	38	
1,285	15,260	Sir George Grey -	ditto - „	„	John Caldwell and others - - - -	84 0	16 0	9 0	49	78	40	
1,286	7,634	Dart - - -	ditto - „	1836	North and South Shields Ferry Company -	51 4	11 2	5 9	2	20	10	
1,287	24,414	Favorite - - -	ditto - „	1828	- - ditto - - - - - -	54 3	12 0	6 1	5	24	9	
1,288	16,159	Robert Ingham -	ditto - „	1856	Smith & Bone - - - - - -	87 7	18 1	9 5	13	84	43	
1,289	17,044	Expert - - -	ditto - „	„	J. R. Lawson - - - - - -	75 2	15 3	8 0	10	52	25	
1,290	17,043	Enterprise - -	ditto - „	„	Hunter & Grant - - - - -	80 8	15 5	8 0	10	60	30	
1,291	17,058	Apollo - - -	ditto - „	„	George Burnett - - - - - -	78 6	15 9	9 5	17	63	30	
1,292	18,059	Earl Percy - -	ditto - 1857	1857	T. Gibson and another - - - -	81 0	16 0	8 7	13	63	30	
1,293	18,060	Olive Branch - -	ditto - „	„	Pearson & Stoker - - - - -	75 3	15 2	8 0	12	54	26	
1,294	10,106	Thomas and Mary -	ditto - „	„	Thomas Dawson & Son - - - -	83 7	17 6	9 3	12	77	43	
1,295	12,597	Telegraph - -	ditto - „	„	John Bewick & Son - - - - -	79 5	15 8	8 0	13	62	30	
1,296	12,683	Sir Walter Scott -	ditto - „	„	Andrew Bain - - - - - -	79 2	16 4	8 0	16	65	30	
1,297	13,313	Restless - - -	ditto - „	„	J. Landells, senior, and another - - -	81 4	16 8	8 0	17	68	30	
1,298	13,315	Alacrity - - -	ditto - „	„	Robert Ray - - - - - - -	75 8	15 0	8 0	11	56	26	
1,299	14,958	Chanticleer - -	ditto - „	„	B. Pearson and another - - - -	75 8	15 0	8 4	12	54	25	
1,300	7,398	Powerful - -	ditto - „	1843	John & M. Charlton - - - - -	75 3	16 0	8 0	13	61	38	
1,301	15,992	Bests - - -	ditto - „	1857	A. Bullock and another - - - -	77 0	16 0	8 0	9	62	28	
1,302	15,999	Gosforth - - -	ditto - „	„	E. Knox and others - - - - -	75 8	14 9	7 0	13	52	26	
1,303	19,394	Lass o' Gowrie -	ditto - „	„	Lamb & Verdy - - - - - -	80 9	16 0	8 5	14	62	30	
1,304	19,399	Fury - - -	ditto - „	„	Jacob & Robert Tweedy - - - -	80 7	17 1	9 0	16	69	30	
1,305	19,873	Walker - - -	ditto - „	„	Wilson & Churnside - - - - -	83 0	16 3	8 0	14	66	30	
1,306	19,874	Spirit of the Tyne -	ditto - „	„	Michael Dodds and others - - - -	88 1	17 0	9 7	20	83	40	
1,307	19,875	Flying Childers -	ditto - „	„	S. Chisholm and another - - - -	86 0	17 0	9 9	12	81	40	
1,308	19,878	War Eagle - -	ditto - „	„	Markham & Oliver - - - - -	80 8	16 1	8 8	14	64	30	
1,309	19,880	Paragon - - -	ditto -		Robert Scott & others - - -							

1,310	2,161	John Hutton	ditto	"	1853	Anthony Strong and another											
1,311	8,945	Goliah	ditto	"	1854	T. B. & C. D. Barker	80	5	15	9	8	8	13	64	33		
1,312	20,437	General Havelock	ditto	1858	1858	J. & W. L. Blacklock	79	1	15	7	8	7	12	59	25		
1,313	20,438	Lion	ditto	"	"	T. B. & C. D. Barker	85	4	16	0	9	0	17	75	37		
1,314	16,791	Tyne	ditto	"	1857	William Thorp	84	0	16	3	8	6	11	68	35		
1,315	21,452	Life Guard	ditto	"	1858	John Robson	79	7	16	2	8	0	12	60	29		
1,316	21,457	Champion	ditto	"	"	Robert Ray and others	79	6	15	8	8	7	18	61	30		
1,317	21,458	Bull Dog	ditto	"	"	Joseph Hall	78	9	16	1	8	5	13	61	30		
1,318	21,740	Amelia	ditto	"	"	Thomas Dawson and others	82	3	16	4	9	0	16	69	36		
1,319	21,742	Vanguard	ditto	"	"	C. O. Young and another	85	8	16	0	9	0	8	73	31		
1,320	7,256	Good Intent	ditto	"	1838	A. Bullock and another	64	3	14	6	8	0	6	50	25		
1,321	21,746	Lightning	ditto	"	1858	John Bewick and others	82	5	17	0	9	1	12	71	35		
1,322	4,938	Waterwitch	ditto	"	1843	William & John Reed	68	2	15	2	7	0	5	46	30		
1,323	19,681	Chieftain	ditto	"	1850	William Clasper	70	3	15	0	8	3	13	47	26		
1,324	22,668	Imperial Prince	ditto	"	1858	George Chisholm and another	80	0	15	0	9	5	16	63	25		
1,325	22,673	Victoria	ditto	1859	1859	William Catt	81	5	16	5	8	0	16	66	30		
1,326	27,351	Echo	ditto	"	"	William Gibson	81	6	16	0	8	0	14	66	30		
1,327	27,354	Orient	ditto	"	"	Archibald Rawlings and others	78	4	15	0	8	0	16	61	30		
1,328	27,355	Leander	ditto	"	"	George Chisholm and others	82	6	16	0	8	0	21	70	30		
1,329	27,358	Pilot	ditto	"	"	Robert Gray and others	86	9	18	5	9	0	21	83	38		
1,330	27,359	Vixen	ditto	"	"	W. Stephenson, jun., and another	81	2	16	0	9	1	19	66	30		
1,331	27,360	Rover	ditto	"	"	E. Zammit	91	8	16	4	9	0	24	83	45	iron.	
1,332	27,363	Sisters	ditto	"	"	David Renwick	78	5	15	0	8	5	21	62	30		
1,333	27,364	Blue Bonnet	ditto	"	"	John Spence and others	74	5	14	9	7	0	14	46	20		
1,334	27,370	Robert Pow	ditto	"	"	Henry Gibson and others	85	8	16	7	8	0	19	68	30		
1,335	27,696	Harkaway	ditto	"	"	C. O. Young and another	83	0	16	9	8	7	21	71	30		
1,336	27,700	Samson	ditto	"	"	William Milburn and others	81	9	16	3	9	0	18	68	35		
1,337	27,701	Hecla	ditto	"	"	Henry Jobes	82	5	16	9	8	0	17	66	30		
1,338	27,702	John Usher	ditto	"	"	Joseph Ostens and another	85	0	17	3	9	0	23	74	35		
1,339	27,704	Liberty	ditto	"	"	Thomas Vardy and another	80	3	14	9	8	0	20	57	30		
1,340	27,705	Resolute	ditto	"	"	John Gray	83	3	16	5	8	8	15	52	35		
1,341	2,311	Lion	ditto	1860	1845	Francis Johnson	66	1	15	0	8	0	9	45	22		
1,342	27,712	Ranger	ditto	"	1860	John Oxley and others	85	0	16	9	9	2	17	74	35		
1,343	27,713	J. P. Almond	ditto	"	"	Edward Foster	76	6	15	6	8	0	16	57	25		
1,344	27,715	Vigilant	ditto	"	"	George Stephenson and another	77	0	16	1	8	6	14	56	25		
1,345	28,567	Robert Stephenson	ditto	"	"	Thomas Atkinson and others	84	0	17	5	9	0	20	74	40		
1,346	28,569	Star	ditto	"	"	Henry Gibson and another	84	5	17	4	8	7	16	71	35		
1,347	28,570	Scottish Chief	ditto	"	"	W. L. & J. Blacklock	74	1	15	4	8	0	12	50	26		
1,348	28,571	Blue Jacket	ditto	"	"	James Mouat	85	7	17	4	9	0	23	76	40		
1,349	28,572	Hope	ditto	"	"	Thomas Smith	68	5	14	5	7	0	15	26	20		
1,350	28,575	John Bull	ditto	"	"	John Bull and another	75	3	15	4	8	0	16	54	20		
1,351	28,576	Home	ditto	"	"	John Oxley	79	4	15	7	8	0	15	58	26		
1,352	28,579	Capiolani	ditto	"	"	John Hall	87	0	16	9	9	1	23	78	35		
1,353	28,589	Northumberland	ditto	"	"	North and South Ferry Company	82	2	23	4	7	5	41	103	37	iron.	
1,354	28,588	Tynemouth	ditto	"	"	William Joplin and others	75	0	14	8	7	0	12	46	25		
1,355	10,177	Ayrshire	ditto	"	1848	Edward Flinn and others	70	4	14	9	8	1	12	44	28		
1,356	4,978	Hercules	ditto	"	1846	William Minto and others	74	2	16	2	8	3	10	53	25		
1,357	7,753	Lion	ditto	"	1847	Robert Hall and others	71	3	15	6	8	2	13	51	28		
1,358	28,593	Cruizer	ditto	1861	1861	John Chisholm and another	86	0	16	9	9	5	27	79	38		

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,359	28,596	Sir William Wallace	Shields - 1861	1861	John Marshall	73 1	15 2	7 0	18	47	20	
1,360	23,745	Transit	ditto - ,,	1848	William Turnbull and another	67 6	16 2	7 8	14	48	24	
1,361	2,296	Engineer	ditto - ,,	1853	J. W. Robson	72 3	14 5	7 9	12	46	24	
1,362	28,600	Pioneer	ditto - ,,	1861	George Oyston and others	86 6	17 3	9 5	28	80	33	
1,363	29,701	Commerce	ditto - ,,	,,	Hugh Taylor and others	170 7	26 4	14 0	336	427	70	iron, screw.
1,364	29,705	Norfolk Hero	ditto - ,,	,,	John Wilson and another	85 5	16 6	8 8	24	70	35	
1,365	29,703	Northern Light	ditto - ,,	,,	John Bewick and others	92 8	17 7	9 5	33	92	38	
1,366	29,708	Renard	ditto - ,,	,,	M. D. Wharrier and others	81 0	16 6	9 1	22	68	29	
1,367	19,384	Gipsy Queen	ditto - ,,	1857	Philip Clendon	74 5	15 2	7 8	11	47	24	
1,368	29,709	Heather Bell	ditto - ,,	1861	Alexander Scott and others	73 4	15 1	7 5	16	45	20	
1,369	29,707	Stranger	ditto - ,,	,,	Stephenson Clisholm and another	80 0	16 5	9 0	19	66	30	
1,370	4,996	Onyx	ditto - ,,	1847	Anthony Potts and another	68 6	14 5	7 9	13	44	24	
1,371	27,365	Rapid	ditto - ,,	1859	Robert Gray and others	78 0	15 6	8 5	15	58	28	
1,372	29,717	British Hero	ditto - ,,	1861	Joseph Watson and others	79 5	16 9	8 8	18	64	28	
1,373	29,718	Mariner	ditto - ,,	,,	William Bengall and another	81 3	16 5	9 0	21	67	28	
1,374	29,720	Great Northern	ditto - ,,	,,	Joseph Ostens and another	81 8	17 1	8 9	22	70	28	
1,375	29,722	Royal Charlie	ditto - ,,	,,	J. & W. Hall	71 1	15 0	8 0	16	47	20	
1,376	29,721	Percy	ditto - ,,	,,	North and South Shields Ferry Company	59 5	15 0	6 0	12	35	18	
1,377	29,724	Le Lion Belge	ditto - ,,	,,	John Fawcus	112 7	19 0	10 0	78	134	60	iron.
1,378	29,727	Robert Burns	ditto - ,,	,,	Andrew Bain	76 4	16 7	9 1	21	71	29	
1,379	29,725	Wizard	ditto - ,,	,,	William Dodds	71 7	15 5	8 5	14	54	25	
1,380	7,649	Trump	Shields, South 1859	1841	Charles Taylor and others	72 3	15 9	8 6	7	55	30	
1,381	7,326	Lady Adelaide	ditto - ,,	1839	Charles Taylor and another	66 5	15 0	8 6	6	53	30	
1,382	28,335	Hellan	ditto - 1860	1860	Joseph Honeyman	89 7	16 4	8 7	16	63	30	
1,383	26,135	Messenger	ditto - ,,	1843	Thomas Cookson	71 5	15 7	8 0	10	55	25	
1,384	28,337	Brunel	ditto - ,,	1860	Thompson, Newton, and others	82 0	17 4	9 4	21	81	35	
1,385	28,339	Tubal Cain	ditto - ,,	,,	Joseph Gray and others	74 0	16 3	8 4	16	57	25	
1,386	19,470	Spirit of the Deep	ditto - ,,	1857	Peter Eltringham and others	90 8	17 6	9 3	18	83	47	
1,387	28,341	Volunteer	ditto - ,,	1859	J. C. Stevenson and another	74 4	16 7	8 5	15	67	32	iron.
1,388	27,046	T. D. Marshall	ditto - ,,	,,	Thomas Coe and others	83 2	16 4	8 8	18	65	30	
1,389	28,346	Messenger	ditto - 1861	1861	Robert Hindmarsh and others	81 7	16 5	8 6	19	62	30	
1,390	28,347	Moselle	ditto - ,,	,,	John Green and others	88 7	18 1	9 8	26	92	40	
1,391	28,348	Pelaw	ditto - ,,	,,	John Coiling and others	77 8	16 5	8 0	18	60	27	
1,392	28,350	Joseph Locke	ditto - ,,	,,	John Redhead and others	82 0	18 0	9 1	27	80	35	
1,393	27,427	Pilots	Shoreham - 1860	1859	John Bartley and others	77 3	16 6	9 0	15	71	34	
1,394	13,862	Ruby	Southampton 1841	1841	W. A. Fitzhugh and others	114 9	16 4	8 1	53	111	40	
1,395	16,616	*Solent	ditto - 1842	,,	Solent Sea Steam Packet Company	82 0	13 6	7 6	34	61	26	
1,396	13,863	*Pearl	ditto - 1844	1844	W. A. Fitzhugh and others	89 8	13 3	7 9	33	64	32	

1,397	13,825	Wonder - - -	Southampton	1841	1841	New South Western Steam Navigation Company.	156	0	23	-	11	-	-	-	-	
1,398	13,839	South Western -	ditto - „	1843	- - ditto - - - - - -	143	0	18	0	10	8	105	167	80	
1,399	13,813	*Transit - - -	ditto - „	1835	- - ditto - - - - - -	126	0	19	6	13	0	160	267	80	
1,400	13,814	Courier - - -	ditto - 1848	1847	- - ditto - - - - - -	167	0	22	5	10	8	147	265	200	
1,401	13,865	*Queen - - -	ditto - „	1848	W. A. Fitzhugh and others - - - -	117	1	14	0	7	5	56	94	40	
1,402	13,819	Dispatch - -	ditto - 1850	1847	New South Western Steam Navigation Company.	166	7	22	1	11	6	149	273	200	iron.
1,403	13,860	Medina - - -	ditto - 1853	1852	W. A. Fitzhugh and others - - -	120	8	14	9	8	6	55	103	50	
1,404	13,805	Atalanta - -	ditto - „	1836	New South Western Steam Navigation Company.	160	4	22	1	12	7	162	313	120	
1,405	25,119	*Gem - - -	ditto - „	1840	Joseph Stace and others - - - -	107	6	14	9	8	0	47	87	40	
1,406	13,809	*Argyll - - -	ditto - „	1851	Henry Lowndes - - - - - -	99	0	16	3	7	4	65	92	20	iron, screw.
1,407	13,975	*Monarch - -	ditto - 1854	1854	Southampton Steam Towing Company -	95	4	17	5	9	7	46	122	80	iron.
1,408	13,978	*Norman - - -	ditto - „	„	Union Steam Collier Company - - -	171	0	24	7	16	8	417	531	60	iron, screw.
1,409	12,994	*Dane - - -	ditto - 1855	1855	- - ditto - - - - - -	177	2	24	6	16	7	421	527	60	iron, screw.
1,410	25,115	Alliance - - -	ditto - „	„	London and South Western Railway Company	175	5	23	7	14	6	168	361	225	iron.
1,411	25,147	Celt - - -	ditto - „	„	Union Steam Collier Company - - -	179	4	25	4	17	2	427	551	95	iron, screw.
1,412	11,385	Havre - - -	ditto - 1856	1856	London and South Western Railway Company	184	7	24	0	14	5	200	387	220	iron.
1,413	9,449	Prince Alfred -	ditto - 1857	1846	W. Winckworth - - - - - -	70	4	11	7	5	4	19	31	20	
1,414	17,836	Athens - - -	ditto - 1858	1856	Union Steam Ship Company - - -	224	0	30	1	16	0	503	739	130	iron, screw.
1,415	16,149	Red Lion - -	ditto - „	„	William Squire and another - - -	76	8	15	0	8	0	14	54	29	
1,416	22,532	Emerald - - -	ditto - „	1857	W. A. Fitzhugh and others - - -	105	0	14	1	8	1	44	26	32	iron.
1,417	22,538	Louisa - - -	ditto - 1859	1858	W. Winckworth - - - - -	79	8	12	4	5	6	23	37	20	iron.
[illegible]	[illegible]	[illegible]	ditto - „	1859	Joseph Hodgkinson - - - - -	75	3	15	5	8	1	13	52	24	
1,419	28,103	Rose Diamond -	ditto - 1860	1860	G. H. Ackers - - - - - -	76	1	10	4	6	5	6	30	20	iron, screw.
1,420	28,106	Kelpie - - -	ditto - „	„	Andrew Lamb - - - - - -	76	1	10	2	6	0	8	24	9	iron, screw.
1,421	28,108	Cambrian - -	ditto - „	„	Union Steam Ship Company - - -	245	1	30	1	18	4	868	1,055	120	iron.
1,422	28,109	Southampton -	ditto - „	„	London and South Western Railway Company	215	5	25	4	12	7	299	774	250	iron.
1,423	29,130	Sapphire - -	ditto - 1861	„	Charles Tucker and others - - - -	120	3	14	5	7	5	51	82	40	iron.
1,424	11,389	Phœnix - - -	ditto - „	1854	Southampton Steam Towing Company -	72	9	19	6	7	9	30	70	40	
1,425	13,973	Aid - - -	ditto - „	1852	- - ditto - - - - - -	84	8	17	3	9	7	28	82	45	
1,426	29,884	Briton - - -	ditto - „	1861	Union Steam Ship Company - - -	248	0	30	7	23	9	928	1,164	120	iron, screw.
1,427	29,885	American - -	ditto - „	„	Henry Pinnock and others - - - -	130	3	25	5	8	2	32	173	80	iron.
1,428	- -	*John and Ann -	Stockton - 1838	1833	Newcastle, Shields and Sunderland Joint Stock Bank.	56	3 in.	14	6 in.	7	6 in.	16	—	—	
1,429	10,484	*British Queen - -	ditto - 1840	1840	John Strong - - - - - -	82	7	16	0	8	9	39	90	50	
1,430	6,239	*Vigilant - - -	ditto - 1843	1843	Blakey & Co. - - - - - -	70	0	15	1	8	5	18	62	35	
1,431	7,064	*Reaper - - -	ditto - 1850	1837	Simpson & Reid - - - - - -	74	2	14	1	8	0	22	63	35	
1,432	19,484	*Voltigeur - -	ditto - 1851	1851	George Craggs - - - - - -	83	0	15	9	8	6	29	82	45	
1,433	- -	*Royal Sovereign -	ditto - „	1832	John Thirkell and others - - - -	52	3	12	3	6	7	10	36	—	
1,434	7,063	*Victory - - -	ditto - 1852	1852	John Strong - - - - - -	107	8	18	3	10	9	53	167	80	
1,435	16,223	Stockton - -	ditto - 1857	1857	Timothy Hughes - - - - -	158	3	25	8	13	4	311	392	180	iron, screw.
1,436	16,225	Tees - - -	ditto - „	„	John Dixon and others - - - -	158	4	25	7	14	0	313	376	70	iron, screw.
1,437	12,437	War Eagle - -	ditto - „	1847	William and Charles Duncan - - -	74	3	16	2	8	4	11	56	38	
1,438	2,490	Tigress - - -	ditto - 1858	1840	William Iley - - - - - -	65	3	14	6	7	6	7	43	26	
1,439	571	Advance - - -	ditto - „	1854	John Vaughan and others - - - -	175	4	22	4	12	0	216	318	50	iron, screw.
1,440	5,531	Middlesbro' - -	ditto - „	1839	Francis Sill - - - - - -	73	8	16	5	8	4	13	64	36	
1,441	17,051	Echo - - -	ditto - „	1856	W. & C. C. Duncan - - - - -	81	3	16	1	8	0	17	65	33	

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,442	25,359	Matilda	Stockton - 1860	1855	Thomas Aylan	48 0	9 6	3 0	6	8	9	screw.
1,443	- -	*Neptune	Sunderland 1826	1826	Roger Watson and others	64 6½in.	22 2 in.	7 7½in.	11	—	—	
1,444	- -	*Pride in the North	ditto - 1844	1837	Thomas Winter and another	44 4	9 5	5 6	7	17	—	
1,445	7,327	*Earl of Sunderland	ditto - 1847	1846	Marquis of Londonderry	72 5	15 2	8 9	17	73	4	
1,446	2,621	*Conqueror	ditto - 1848	1847	George Welch and others	67 0	13 1	7 8	13	47	28	
1,447	2,489	Haswell	ditto - ,,	1848	Charles Taylor	75 8	16 1	8 8	13	68	40	
1,448	20,784	*Wansbeck	ditto - ,,	1835	Thomas Winter	52 7	11 9	6 5	13	32	—	
1,449	- -	Pilot	ditto - ,,	1848	Richard Gordon and others	67 8	14 6	7 9	10	46	48	
1,450	14,198	*Haswell	ditto - ,,	1844	William Nicholson	75 8	15 8	9 0	21	79	45	
1,451	7,325	*Sea Horse	ditto - 1849	1840	Improvement Commissioners	77 0	16 5	9 0	26	87	40	
1,452	2,476	*Pilot	ditto - ,,	1848	Francis Taylor and others	67 3	14 1	8 0	17	51	56	
1,453	2,859	*Robert and Mary	ditto - 1850	1849	Joseph Wardell	66 6	13 3	8 1	15	48	26	
1,454	23,728	Whitwell	ditto - 1851	1844	William Jameson and others	64 0	14 2	7 9	5	42	25	
1,455	7,317	Engineer	ditto - ,,	1848	Nicholas Wood	78 5	15 7	8 9	14	69	28	
1,456	23,605	Tom Bowline	ditto - 1852	,,	Nicholas Cook	63 5	12 8	7 7	20	49	25	
1,457	2,492	Vesta	ditto - 1853	1847	Edward Brown	58 3	12 8	7 0	7	33	18	
1,458	23,634	*Scottish Maid	ditto - ,,	1851	Thomas Winter and others	63 0	13 2	7 2	9	37	20	
1,459	23,690	*Olive	ditto - ,,	1846	Sunderland Dock Company	72 0	15 0	8 0	26	73	34	
1,460	2,475	Industry	ditto - 1854	1834	Taylor & Cook	54 2	11 4	6 9	6	28	17	
1,461	30,032	Black Boy	ditto - ,,	1854	Nicholas Wood and others	164 0	26 5	15 7	386	490	79	iron, screw.
1,462	26,450	Killingworth	ditto - 1855	1855	Nicholas Wood and another	167 7	27 9	16 4	425	567	- -	iron, screw.
1,463	2,744	Secret	ditto - ,,	1851	William Laythorpe and others	67 3	13 0	7 2	11	38	18	
1,464	2,749	*Clyde	ditto - ,,	1847	Francis Welch	67 0	13 5	8 1	20	51	27	
1,465	23,719	Beaufort	ditto - ,,	1855	William Nicholson	85 9	17 1	9 3	21	77	45	
1,466	7,315	William and John	ditto - ,,	,,	W. & J. Brown	67 5	14 2	7 4	10	40	28	
1,467	7,334	Lambton	ditto - 1856	1852	Earl of Durham	69 0	14 5	7 1	16	48	28	
1,468	7,261	Ovington	ditto - ,,	1838	Thomas Wood and others	63 5	13 0	7 2	14	41	20	
1,469	7,369	Pilot	ditto - ,,	1856	John Linsey and others	86 0	18 0	9 6	52	83	45	
1,470	7,366	Viscount Lambton	ditto - ,,	,,	H. T. Morton	190 8	28 7	16 3	493	616	80	
1,471	7,321	Queen	ditto - ,,	1837	W. Stephenson	70 0	15 0	7 0	10	50	30	
1,472	17,708	Lady Alice Lambton	ditto - ,,	1853	Earl of Durham	163 3	27 2	15 1	405	589	80	iron, screw.
1,473	17,057	Bee	ditto - ,,	1856	Sunderland Dock Company	82 9	16 6	9 0	14	72	35	
1,474	18,688	Seaton	ditto - 1857	1857	Nicholas Wood	175 9	26 9	15 6	375	552	70	iron, screw.
1,475	18,870	Lyon	ditto - ,,	,,	- - ditto	166 6	27 1	14 0	348	435	70	iron, screw.
1,476	19,475	Londonderry	ditto - ,,	,,	Dowager Marchioness of Londonderry	150 9	26 0	14 8	280	393	60	iron, screw.
1,477	19,794	Hercules	ditto - ,,	,,	William Stobart and others	194 8	34 1	17 3	699	807	90	iron, screw.
1,478	19,795	Water Lily	ditto - ,,	,,	Thomas Wood and others	80 3	16 4	8 0	11	65	20	
1,479	20,139	Nimrod	ditto - ,,	,,	J. Wilkinson and others	85 1	17 2	9 0	14	73	40	
1,480	2,177	Collingwood	ditto -	1842	George Dowell	56 6	13 7	6 0	9	29	14	

1,481	20,466	Gem - -	...	...	,,	1837	William Thompson and others - - -	69	4	14	6	7	6	-	-	-	
1,482	7,397	Falcon - - -	ditto	-	,,	1857	Earl of Durham - - - - - -	168	0	26	6	13	6	412	492	70	iron, screw.
1,483	20,491	Lambton - - -	ditto	-	,,		Michael Taylor and others - - -	81	0	16	0	8	5	16	61	30	
1,484	20,492	Rob Roy - - -	ditto	-	,,	,,	Dowager Marchioness of Londonderry -	73	2	16	2	9	5	9	77	40	iron.
1,485	20,494	Harry Vane - -	ditto	-	,,	,,	Thomas Wood and others - - - -	72	6	15	6	8	0	13	39	30	
1,486	23,712	Gently - - -	ditto	-	1858	1846	H. T. Morton - - - - - -	177	7	28	1	15	0	421	539	80	iron.
1,487	5,339	Countess of Durham	ditto	-	,,	1855	Joseph Claxton - - - - - -	63	7	15	2	7	6	9	40	25	
1,488	2,127	Advance - - -	ditto	-	,,	1838	Robert Brown and others - - -	70	3	14	2	7	7	13	43	24	
1,489	27,513	Diamond - -	ditto	-	1859	1859	John Thurlbeck and others - - -	75	6	15	3	8	1	15	53	26	
1,490	2,167	Gipsy King - -	ditto	-	,,	1855	Henry Rowell and another - - -	59	6	13	0	6	7	5	31	15	
1,491	16,153	Blossom - - -	ditto	-	,,	1838	Hutchinson, Jobling and others - -	82	6	17	1	9	3	18	76	36	
1,492	28,031	Spring Flower - -	ditto	-	,,	1859	John Smurthwaite and others - -	142	0	23	0	12	0	192	282	50	iron, screw.
1,493	28,036	Thames - - -	ditto	-	,,	,,	Henderson Brown and others - - -	66	9	15	0	7	9	10	43	23	
1,494	16,151	Harvest Home - -	ditto	-	1860	1847	C. R. Fenwick - - - - - -	198	1	32	7	17	8	590	868	120	iron, screw.
1,495	28,439	Samson - - -	ditto	-	,,	1860	J. Gatiss - - - - - - -	65	8	14	0	6	4	4	33	20	
1,496	2,491	Welches - - -	ditto	-	,,	1848	John Thurlbeck and others - - -	69	4	14	5	8	3	10	44	23	
1,497	10,164	Helen M'Gregor -	ditto	-	,,	,,	W. Redford and another - - -	90	6	17	3	9	1	25	83	40	
1,498	28,771	Vigilant - - -	ditto	-	,,	1860	Joseph Wardle and another - - -	68	6	14	4	7	6	9	48	28	
1,499	19,412	Monarch - - -	ditto	-	,,	1835	Anthony Barber and another - - -	75	9	14	9	8	2	12	52	28	
1,500	22,664	Escort - - -	ditto	-	,,	1858	John Frost and others - - - -	78	5	17	2	8	4	23	73	35	
1,501	7,307	Atlas - - -	ditto	-	,,	1848	C. M. Webster and others - - -	180	1	28	0	16	0	483	623	70	iron, screw.
1,502	28,790	Vedra - - -	ditto	-	,,	1860	W. T. Bell and others - - - -	74	0	15	4	8	2	16	25	25	
1,503	28,795	Wearmouth - -	ditto	-	,,	,,	James Laing and others - - -	177	4	28	3	16	7	469	606	70	iron, screw.
1,504	29,243	Deptford - - -	ditto	-	,,	,,	Martin Dunn and others - - -	165	1	28	2	16	2	334	491	70	iron, screw.
1,505	20,220	Hesten	ditto	-	,,	1854	Nicholas Wood and others - - -	165	3	26	0	15	6	373	469	75	iron, screw.
1,506	25,222	Cochrane - -	ditto	-	,,	,,	John Hann - - - - - -	61	0	13	0	7	5	14	40	25	
1,507	15,971	Tiger - - -	ditto	-	,,	1838	William Richardson and another - -	62	0	15	1	6	5	9	31	18	
1,508	2,200	Ann and Jane -	ditto	-	1861	1847	Hutchinson, Jobling and others - -	74	0	15	4	8	2	16	55	25	
1,509	29,248	Seaflower - -	ditto	-	,,	1860	William Swinhoe and others - - -	75	0	15	4	7	8	15	49	30	
1,510	29,249	Daisy - - -	ditto	-	,,	,,	George Dowell - - - - - -	70	5	14	0	7	4	19	52	20	
1,511	2,098	Carrs - - -	ditto	-	,,	1855	Wilkinson, Thurlbeck, and others - -	77	6	15	9	8	5	11	57	28	
1,512	22,666	Marco Polo - -	ditto	-	,,	1858	William Nicholson and others - - -	85	4	18	0	9	3	20	81	40	
1,513	29,266	Ryhope - - -	ditto	-	,,	1860	James Laing and others - - - -	185	3	24	0	13	9	385	473	90	iron, screw.
1,514	29,858	General Havelock -	ditto	-	,,	1861	William Gray and others - - - -	176	9	28	7	16	6	467	591	70	iron, screw.
1,515	29,864	Southwick - -	ditto	-	,,	,,	Earl of Durham - - - - - -	189	6	28	2	16	2	441	566	70	iron, screw.
1,516	2,837	Earl of Durham -	ditto	-	,,	1854	Burton Brown and others - - - -	75	6	15	1	7	9	15	49	25	
1,517	29,865	Friends - - -	ditto	-	,,	1861	Edward Brown - - - - - -	70	5	14	7	7	6	9	42	25	
1,518	29,867	Favourite - -	ditto	-	,,	1860	H. T. Morton and others - - - -	176	9	28	7	16	6	480	608	80	iron, screw.
1,519	43,722	Earl of Elgin - -	ditto	-	,,	1861	E. T. Gourley and another - - - -	214	6	31	3	18	1	701	876	120	iron, screw.
1,520	43,727	Parthenon - -	ditto	-	,,	,,	William Stobart and another - - -	189	7	28	5	16	7	533	668	70	screw.
1,521	43,732	Douglas - - -	ditto	-	,,	,,	John Smurthwaite and others - - -	186	0	24	0	13	0	393	480	90	iron, screw.
1,522	43,736	Lady Havelock -	ditto	-	,,	,,	William Gray & Co. - - - - -	190	5	26	8	15	4	475	583	70	iron, screw.
1,523	43,741	North Eastern - -	ditto	-	,,	,,	William Davison and another - - -	71	1	13	6	7	6	18	46	25	
1,524	43,745	Victoria - - -	ditto	-	,,	,,	William Brown and another - - -	73	0	15	1	7	8	16	48	20	
1,525	43,754	Belmont - - -	ditto	-	,,	,,	Joseph Wardle and others - - -	76	3	15	6	8	3	12	55	26	
1,526	7,266	Caledonia - -	ditto	-	,,	1846	E. T. Gourley and others - - - -	210	3	31	7	18	1	672	846	100	iron, screw.
1,527	43,757	Atlas - - -	ditto	-	,,	1861	- - ditto - - - - - -	211	2	31	7	18	3	684	852	90	iron, screw.
1,528	43,758	Ajax - - -	ditto	-	,,	,,	N. B. Allen and others - - - -	68	3	14	2	8	2	15	64	—	
1,529	20,450	*Dragon Fly - -	Swansea	-	1840	1840											

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,530	- -	*Pioneer - - -	Swansea - 1843	1843	Nathaniel Tregelles - - - - -	70 0	16 0	9 4	19	81	—	
1,531	7,930	*Chieftain - - -	ditto - 1844	1844	J. W. Leach and others - - - -	70 0	14 4	8 7	20	69	45	
1,532	3,948	Neath Abbey - -	ditto - 1846	1846	Evan Evans - - - - - -	97 0	16 4	9 0	48	79	60	
1,533	7,926	*Tartar - - -	ditto - 1850	1850	James Petrie and others - - - -	86 0	16 7	9 4	46	110	50	iron.
1,534	- -	*Donna - - -	ditto - „	1840	Port Talbot Company - - - - -	72 6	15 0	8 8	22	69	—	
1,535	7,941	*Trindon Grange -	ditto - 1854	1848	C. H. Smith - - - - - -	78 2	14 0	7 6	22	60	40	
1,536	3,942	Lord Beresford -	ditto - 1855	1824	J. W. Pockett - - - - - -	116 8	16 5	11 6	69	139	80	
1,537	3,938	Prince of Wales -	ditto - „	1842	- - ditto - - - - - -	130 8	17 3	10 0	80	156	70	iron.
1,538	5,832	Chieftain - -	ditto - 1856	1847	James Knox - - - - - -	67 3	13 3	7 5	30	47	25	
1,539	2,497	Eagle - - -	ditto - 1857	1855	Edward Brown and others - - - -	82 5	16 9	9 3	16	73	45	
1,540	24,692	Augusta - - -	ditto - 1858	1849	H. K. Vivian - - - - - -	140 4	17 3	10 0	125	184	40	iron, screw.
1,541	23,253	Briton Ferry - -	ditto - „	1852	- - ditto - - - - - -	131 9	17 0	10 1	157	200	35	iron, screw.
1,542	26,036	Henry Southam -	ditto - „	1849	J. W. Pockett - - - - - -	139 6	17 8	8 4	96	141	35	iron, screw.
1,543	26,742	Charlotte - - -	ditto - 1859	1848	William Jones - - - - - -	83 0	18 7	7 7	60	88	20	iron, screw.
1,544	20,797	Stella - - -	ditto - 1860	1858	J. H. Simpson and others - - - -	85 3	17 3	9 3	22	78	45	
1,545	28,057	Minos - - -	ditto - „	1860	C. H. Smith - - - - - -	111 7	15 5	9 0	26	94	80	iron.
1,546	29,594	Fleur de Marie -	ditto - 1861	1845	H. H. Vivian - - - - - -	48 2	11 7	9 2	19	29	10	iron, screw.
1,547	20,904	*Industry - - -	Teignmouth 1853	1848	S. W. Hutchings and others - - -	67 9	12 6	6 7	19	42	18	
1,548	13,941	*Contractor - -	Weymouth 1852	1849	Joseph Cosens and others - - - -	84 4	15 8	8 9	31	86	45	
1,549	21,519	*Prince - - -	ditto - „	1852	- - ditto - - - - - -	128 5	13 3	7 6	61	86	40	iron.
1,550	6,228	Ocean Pride - -	ditto - 1856	1844	- - ditto - - - - - -	72 0	12 6	5 8	18	29	18	
1,551	17,847	Cygnus - - -	ditto - 1858	1854	Weymouth and Channel Islands Steam Packet Company.	182 0	21 4	9 7	133	245	120	iron.
1,552	18,602	Aquila - - -	ditto - „	„	- - ditto - - - - - -	180 4	21 0	10 9	138	264	110	iron.
1,553	11,918	Brighton - - -	ditto - 1859	1857	- - ditto - - - - - -	193 5	20 9	10 0	180	286	140	iron.
1,554	19,586	Ceres - - -	ditto - „	1859	J. T. Leather - - - - - -	143 0	21 6	10 5	80	168	60	iron, screw.
1,555	2,102	Bannockburn - -	ditto - „	1847	John Tizard and others - - - -	69 6	16 0	8 4	11	53	28	
1,556	6,387	Premier - - -	ditto - „	1846	- - ditto - - - - - -	140 2	17 0	6 9	62	98	65	iron.
1,557	12,596	Contractor - -	ditto - 1861	1857	J. T. Leather - - - - - -	90 3	17 0	9 0	23	86	40	
1,558	8,941	*Hilda - - -	Whitby - 1853	1853	Whitby Steam Packet Company - - -	71 4	14 2	8 1	21	59	25	
1,559	2,168	Marshall - - -	ditto - 1857	1852	Robert Laugh and another - - - -	68 3	14 3	7 0	18	46	—	
1,560	17,458	Esk - - -	ditto - „	1857	Edward Corner and others - - - -	89 0	17 7	9 3	21	86	45	
1,561	44,082	Atlas - - -	ditto - 1861	„	C. P. Stewart and others - - - -	87 0	22 1	8 0	106	125	12	iron, screw.
1,562	9,377	*Prince Albert -	Whitehaven 1842	1840	Trustees of Whitehaven Harbour - - -	82 1	15 0	8 4	37	87	60	
1,563	9,235	Queen - - -	ditto - 1845	1844	Thomas Jackson and others - - -	158 5	23 5	13 4	243	373	180	
1,564	17,233	Princess Alice -	ditto - 1861	1843	Edward Jobling and others - - - -	165 6	27 0	13 8	255	405	150	iron.
1,565	14,434	*Don - - -	Wisbeach - 1854	1839	J. T. Leather - - - - - -	69 4	14 4	8 2	18	60	28	
1,566	14,493	Great Northern -	ditto - „	1854	Richard Young - - - - - -	165 0	26 8	15 8	332	464	70	iron, screw.
1,567	14,439	Florence Nightingale	ditto - 1858	1858	[illegible]							

1,569	27,794	Wisbeach	ditto	1861	1861	Richard Young									
1,570	14,609	*Derwent	Workington	1850	1849	Trustees of Workington Harbour	73	8	15	7	8	7	18	67	35	
1,571	4,736	Norfolk	Yarmouth	1849	1846	Mark Blowers and others	148	6	20	5	10	7	148	230	120	iron, screw.
1,572	4,819	*Bold Buccleugh	ditto	„	1847	Daniel Harmer	149	0	17	1	9	1	145	209	120	iron.
1,573	6,631	*Emperor	ditto	1851	„	R. Steward and others	77	6	15	6	8	8	21	73	45	
1,574	15,051	*Urania	ditto	1855	1854	Daniel Harmer & Co.	142	2	18	9	11	6	196	254	60	iron, screw.
1,575	12,375	Volunteer	ditto	1856	1856	Thomas Pain	81	2	16	7	8	9	12	68	36	
1,576	12,439	Dolphin	ditto	„	1837	Robert Steward and others	62	5	17	6	5	6	22	56	25	
1,577	6,697	Robert Owen	ditto	1860	1848	- ditto	80	0	17	2	8	9	24	75	45	
1,578	17,056	Andrew Woodhouse	ditto	1861	1856	Thomas Pain and another	85	6	17	6	9	4	15	79	40	
1,579	21,074	Minnet	ditto	„	1858	- ditto	85	7	16	7	9	3	17	77	40	
1,580	12,141	Isle of Arran	ditto	„	1838	J. B. Clarke and another	125	9	20	1	8	9	54	129	60	
1,581	26,349	*City of London	Aberdeen	1844	1844	Moir & Co.	216	8	30	0	19	2	723	1,117	420	
1,582	6,837	*Earl of Aberdeen	ditto	1847	1847	- ditto	207	9	27	0	17	8	595	908	380	
1,583	6,836	*Victoria	ditto	1848	1848	Aberdeen and Newcastle Steam Navigation Company.	148	5	19	9	10	2	153	279	110	
1,584	6,882	Fox	ditto	1855	1855	J. Johnson	122	4	23	9	12	4½	156	177	15	screw.
1,585	6,910	Aberdeenshire	ditto	1856	„	Hardy Robinson and others	136	3	20	4	12	0	150	220	50	iron, screw.
1,586	13,547	Waldensian	ditto	„	1856	J. T. Rennie	164	6	24	5	14	1	285	403	60	iron, screw.
1,587	26,339	Heather Bell	ditto	1857	1857	John Newton and others	88	0	17	9	9	6	16	82	40	
1,588	7,759	Sovereign	ditto	„	1836	John Webster and others	157	1	23	4	14	4	221	417	200	
1,589	20,345	Prince Consort	ditto	1858	1858	- ditto	222	9	25	2	14	1	392	623	300	iron.
1,590	16,279	Kangaroo	ditto	1859	1853	David Dunn	167	5	23	3	12	6	312	458	60	iron, screw.
1,591	26,622	Gambia	ditto	„	1855	B. Moir and others	191	9	26	2	14	3	352	517	80	iron, screw.
[illegible]	[illegible]	Humburg	ditto	1860	1849	John Webster and others	210	5	26	0	16	2	437	693	250	iron.
1,593	10,099	Britannia	ditto	„	1857	George Leslie	85	3	11	0	9	0	16	82	40	
1,594	27,575	Derwent	ditto	„	1860	John Newton and others	78	4	16	7	9	0	11	68	30	
1,595	27,448	Stanley	ditto	1861	1859	Benjamin Moir and others	193	9	27	0	14	5	376	552	110	iron, screw.
1,596	43,556	Queen	ditto	„	1861	John Webster and others	180	8	26	0	13	2	283	404	120	iron, screw.
1,597	7,841	Pharos	ditto	„	1846	J. T. Rennie and others	143	4½	21	2¾	13	6	186	270	160	iron.
1,598	10,044	*Prince of Wales	Alloa	1845	1845	Alloa and Stirling Steam Boat Company	130	3	21	1	7	9	93	154	80	
1,599	10,001	Stirling Castle	ditto	1849	1826	John M'Nelland and others	88	0	16	9	8	0	52	92	40	
1,600	18,273	Robert Bruce	ditto	1857	1856	Thomas Adamson	69	5	17	1	7	6	8	53	27	
1,601	2,457	Harvest Home	ditto	„	1837	- ditto	73	8	14	3	8	5	12	50	32	
1,602	20,792	Victoria	ditto	1858	1858	Stirling, Alloa, and Kincardine Steam Boat Company.	135	8	15	0	6	0	67	92	40	iron.
1,603	12,175	Northumberland	Ardrossan	1859	1852	John Moffat	78	6	17	2	7	9	14	72	40	iron.
1,604	26,988	Earl of Arran	ditto	1860	1860	Ardrossan and Arran Steam Ship Company.	143	4	18	5	8	5	91	144	80	iron.
1,605	26,152	Griffin	Ayr	1859	1858	James Baird	155	0	20	1	11	8	147	216	60	iron, screw.
1,606	26,157	Nankin	ditto	1861	1861	James Paton and others	122	0	17	0	9	1	80	119	50	iron, screw.
1,607	15,117	Ayrshire Lass	ditto	„	1848	Thomas Steele and others	92	2	20	1	7	5	66	94	25	iron, screw.
1,608	18,765	Thane	Borrowstoness	1858	1858	John Scott	65	2	17	9	10	1	53	78	20	iron, screw.
1,609	29,031	Whiteinch	ditto	1860	1860	William Wilson	42	3	14	8	6	0	19	23	7	screw.
1,610	3,323	*Celt	Campbeltown	1848	1848	Campbeltown and Glasgow Steam Packet Joint Stock Company.	155	9	20	3	10	3	154	272	140	
1,611	18,787	Druid	ditto	1857	1857	John Bush, junior, and others	160	1	20	6	9	7	125	229	150	iron.
1,612	11,511	*Lass o' Gowrie	Dundee	1841	1841	G. Wallace and another	114	2	15	0	8	4	74	127	50	

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RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,613	7,154	*Dundee	Dundee - 1845	1834	Dundee, Perth, and London Shipping Company	160 7	25 7	17 6	379	638	300	
1,614	7,143	*Hercules	ditto - 1853	1853	- ditto	78 0	15 6	8 6	34	81	30	
1,615	40,922	*Neptune	ditto - 1854	1848	A. Barrow	96 8	19 2	8 8	84	111	20	iron, screw.
1,616	15,088	London	ditto - 1856	1856	John Symers and others	208 9	28 2	16 0½	423	622	140	iron, screw.
1,617	19,287	Hamburg	ditto - 1857	1857	- ditto	180 5	25 2	13 0	305	439	90	iron.
1,618	19,290	Samson	ditto - „	„	- ditto	81 8	18 3½	9 5½	36	82	–	iron.
1,619	31,624	Tay	ditto - 1858	1850	William Clark	141 6	29 0	19 6	455	560	75	screw.
1,620	20,366	Eagle	ditto - „	1858	John Symers and others	164 3	22 8	12 0	215	316	85	iron, screw.
1,621	7,109	Queen	ditto - „	1856	- ditto	159 9	22 1	12 8	200	294	70	iron, screw.
1,622	22,682	Fifeshire	ditto - 1859	1858	John Pullar and others	124 4	30 1	6 6	153	243	80	iron.
1,623	22,685	Dundee	ditto - „	1859	William Clark and others	149 8	29 1	19 0	340	500	70	screw.
1,624	22,686	Narwhal	ditto - „	„	James Scott	151 4	30 1	18 5	434	533	65	screw.
1,625	27,496	Camperdown	ditto - 1860	1860	David Duncan and others	154 5	30 0	18 0	424	541	70	
1,626	5,480	Wildfire	ditto - „	1854	William Harris and others	145 3	28 0	16 7	287	364	50	screw.
1,627	29,451	Polynia	ditto - 1861	1861	Patrick Anderson and others	146 2	29 0	18 1	358	472	60	screw.
1,628	29,453	Dalhousie	ditto - „	„	Dundee and Newcastle Steam Shipping Company.	144 5	19 0	10 4	156	197	45	iron, screw.
1,629	29,456	Forfarshire	ditto - „	„	John Pullar and others	120 5	20 1	6 6	72	115	40	steel.
1,630	15,103	*Scotia	Glasgow - 1846	1845	Glasgow and Stranraer Steam Packet Company.	141 3	17 5	8 7	82	165	80	
1,631	22,947	*Invincible	ditto - „	1844	Z. C. Pearson and another	130 1	16 8	8 0	78	131	75	iron.
1,632	3,174	Lady Kilburne	ditto - „	1843	Glasgow, Largs, and Milport Union Steam Boat Company.	149 2	17 5	8 0	78	151	80	
1,633	23,924	*Satellite	ditto - 1848	1848	J. Burns and others	108 5	18 8	9 7	82	157	80	
1,634	3,175	*Star	ditto - 1849	1849	Glasgow, Largs, and Millport Union Steam Boat Company.	156 0	17 9	8 4	95	186	100	iron.
1,635	3,154	Rose	ditto - 1851	1851	Glasgow and Londonderry Steam Packet Company.	184 5	23 0	12 8	245	444	200	iron.
1,636		*St. Columb	ditto - „	1834	R. P. Stevens	121 1	18 0	12 2	140	238	–	
1,637	3,158	Pioneer	ditto - „	1844	D. Hutcheson & Co.	159 8	17 8	8 8	65	144	91	iron.
1,638	3,159	*Dolphin	ditto - „	„	- - ditto	161 5	20 3	10 8	114	210	100	iron.
1,639	3,161	Cygnet	ditto - „	1848	- - ditto	77 5	14 5	10 0	62	101	50	iron.
1,640	6,359	Mary Jane	ditto - „	1846	- - ditto	149 5	19 3	9 5	122	208	120	iron.
1,641	3,162	Mountaineer	ditto - 1852	1852	- - ditto	174 3	17 6	7 9	76	156	50	iron.
1,642	3,178	Lady Brisbane	ditto - „	1842	Glasgow, Largs, and Millport Union Steam Boat Company.	133 0	17 4	8 5	80	140	76	iron.
1,643	22,863	*Guy Fawkes	ditto - „	1849	Thomas Buchanan and another	63 4	14 2	8 3	35	57	12	iron, screw.
					J. Burns and others	284 2	37 3	27 6	1,359	2,093	930	

1,646	3,375	*Rein Deer	ditto	„	1852	J. D. Mullens	166	0	15	7	7	3	84	143	70	iron.
1,647	1,540	*British Queen	ditto	„	1849	James Burns and others	187	1	28	0	17	8	566	763	180	iron, screw.
1,648	17,877	*Shandon	ditto	„	1839	John Anderson	134	9	16	5	10	9	115	186	80	
1,649	1,334	*Jackal	ditto	„	1853	J. Burns and others	125	4	19	5	9	8	111	180	80	iron.
1,650	15,458	*Emperor	ditto	„	1843	James Anderson	121	7	16	1	7	2	45	95	50	iron.
1,651	3,176	Vesta	ditto	„	1853	Glasgow, Largs, and Millport Union Steam Boat Company.	160	0	16	1	9	1	77	133	70	iron.
1,652	1,284	*Asia	ditto	„	1850	J. Burns and others	265	2	37	2	27	2	1,214	2,227	816	
1,653	3,167	*City of Worcester	ditto	„	„	William Mutter	97	1	20	3	7	9	86	130	25	iron.
1,654	1,821	*Africa	ditto	„	„	J. Burns and others	265	6	37	2	27	2	1,216	2,226	650	
1,655	1,791	*Karnak	ditto	„	1853	- - ditto	210	5	29	5	24	0	794	1,127	140	iron, screw.
1,656	3,177	Venus	ditto	„	1852	Glasgow, Largs, and Millport Union Steam Boat Company.	172	0	17	1	8	2	72	140	92	iron.
1,657	1,609	*America	ditto	1854	1847	J. Burns and others	249	0	35	1	25	3	984	1,826	600	
1,658	7,074	*Niagara	ditto	„	„	- - ditto	249	1	35	1	25	2	1,008	1,835	680	
1,659	22,876	Craignish Castle	ditto	„	1844	Peter M'Gregor	170	3	19	0	9	3	80	175	70	iron.
1,660	17,669	Therese	ditto	„	1854	John Tennant	162	0	21	7	11	7	200	289	60	iron, screw.
1,661	3,098	Irishman	ditto	„	„	A. A. Laird	153	1	20	5	12	5	184	268	60	iron, screw.
1,662	1,285	*Canada	ditto	„	1848	J. Burns and others	249	0	35	1	25	7	1,102	1,831	698	
1,663	26,053	*Jura	ditto	„	1854	J. and A. Allan	313	8	35	8	27	6	1,068	2,241	400	iron, screw.
1,664	31,638	*White Swan	ditto	„	„	J. M'Kenzie and another	145	4	22	1	13	2	198	322	72	iron, screw.
1,665	1,816	*Delta	ditto	„	„	Sir Samuel Cunard	208	6	27	0	15	8	423	644	120	iron, screw.
1,666	3,173	*Dunoon Castle	ditto	„	1826	Archibald M'Meikin	106	7	18	1	8	6	75	151	60	
1,667	20,705	*Islay	ditto	1855	1849	James Morrison and others	167	0	20	8	10	6	200	325	160	iron.
1,668	3,129	*Iona	ditto	„	1855	David Hutcheson & Co.	225	2	20	4	9	0	174	325	220	iron.
1,669	3,186	Gem	ditto	„	1854	W. R. Coulborn	161	0	15	9	7	5	84	132	140	iron.
1,670	3,238	*Lightning	ditto	„	1855	R. B. Durham	205	0	25	9	19	3	316	673	240	iron, screw.
1,671	3,213	*Anglesea	ditto	„	„	J. Laird	160	6	18	6	10	3	149	245	300	iron.
1,672	22,804	Nelson	ditto	„	„	Alexander M'Kellar	150	1	16	5	6	8	61	114	60	iron.
1,673	22,823	Clausman	ditto	„	„	David Hutcheson & Co.	191	3	25	7	12	8	261	414	180	iron.
1,674	22,937	Emily	ditto	„	„	H. L. Seligmann	133	5	20	6	12	1	152	224	30	iron, screw.
1,675	22,935	Garland	ditto	„	„	John Cameron and others	165	8	23	1	12	2	192	283	120	iron, screw.
1,676	22,895	Sir Colin Campbell	ditto	„	„	Henry Curtis and others	166	7	17	5	7	1	66	120	85	iron.
1,677	11,523	Persia	ditto	1856	1856	John Burns and others	376	0	45	3	30	0	2,079	3,300	900	iron.
1,678	11,550	Caledonia	ditto	„	„	David Tod and others	162	8	18	7	9	4	115	183	80	iron.
1,679	22,927	Eagle	ditto	„	1852	W. Buchanan and another	169	9	16	5	8	3	76	147	70	iron.
1,680	22,772	Sovereign	ditto	„	1845	J. O. Lever	151	8	17	0	8	0	80	127	50	iron.
1,681	13,530	Jupiter	ditto	„	1856	John Reid and others	184	9	18	2	8	3	82	171	110	iron.
1,682	15,462	Lochgoil	ditto	„	1853	James Wilson and others	163	0	16	0	7	1	78	124	80	iron.
1,683	15,464	Victoria	ditto	„	1850	R. M. Smith	157	0	16	1	8	5	79	125	80	iron.
1,684	26,137	Rapid	ditto	„	1848	M'Farlane & Co.	74	0	15	7	8	6	7	51	35	
1,685	16,241	St. Elmo	ditto	„	1856	Thomas Meikle and others	161	3	22	1	11	6	181	266	60	iron, screw.
1,686	25,943	Europa	ditto	„	„	John Burns and others	286	3	38	1	17	0	1,208	1,918	800	
1,687	6,386	Wizard	ditto	„	1848	Kidston & Whyte	76	0	17	7	9	2	16	80	50	iron.
1,688	16,249	Nimrod	ditto	„	1854	- - ditto	83	4	16	4	8	9	17	67	45	
1,689	6,384	Conqueror	ditto	„	1846	- - ditto	115	8	20	4	12	1	39	191	120	
1,690	2,040	Maid of Orleans	ditto	„	1855	M'Farlane & Co.	80	6	16	5	8	7	16	64	32	
1,691	7,648	Sir Charles Napier	ditto	„	1854	John Steel and others	72	9	15	0	8	3	13	51	28	
1,692	2,961	Firefly	ditto	„	„	- - ditto	75	6	15	2	8	5	7	51	30	

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,693	17,874	Don Pedro	Glasgow 1856	1856	Glasgow and Lisbon Steam Packet Company	169 7	20 1	12 5	239	300	90	iron, screw.
1,694	17,185	Carthage	ditto 1857	„	A. Perceval	216 8	30 0	15 0	500	736	150	
1,695	6,383	Industry	ditto „	1814	A. M'George	68 1	17 2	8 1	43	69	14	
1,696	14,516	Duke of Northumberland	ditto „	1856	Kidston & Whyte	91 4	16 0	8 0	18	75	43	
1,697	15,261	Flying Childers	ditto „	„	- - ditto	94 2	18 5	10 0	21	102	48	
1,698	17,198	Kelpie	ditto „	1857	William Dargan	191 0	18 0	7 0	70	166	130	iron.
1,699	15,477	Diamond	ditto „	1853	James Henderson	182 1	20 0	9 1	96	187	110	iron.
1,700	15,483	Express	ditto „	1854	J. Campbell and others	179 0	16 1	6 9	71	113	70	iron.
1,701	15,485	United Kingdom	ditto „	1857	John Bell and others	245 0	32 0	21 9	1,067	1,255	300	iron, screw.
1,702	19,486	General Williams	ditto „	1856	John Steel and others	79 0	15 7	8 0	11	60	35	
1,703	19,488	James Watt	ditto „	1857	- - ditto	79 0	17 2	7 1	47	69	15	iron, screw.
1,704	19,493	Eagle	ditto „	„	A. Laird	161 0	23 0	13 0	220	324	60	iron, screw.
1,705	20,519	Glasgow	ditto „	„	J. B. Murdoch and another	63 2	17 0	8 3	39	60	20	iron, screw.
1,706	6,358	Inverary Castle	ditto „	1839	David Hutcheson & Co.	140 0	21 5	9 4	76	181	80	iron.
1,707	20,523	Leith	ditto 1858	1858	J. B. Murdoch and another	63 2	17 0	8 3	39	61	20	iron, screw.
1,708	20,524	Henry Bell	ditto „	1857	John Steel and others	78 7	17 2	7 0	47	69	15	iron, screw.
1,709	8,647	Vasco da Gama	ditto „	1854	Glasgow and Lisbon Steam Packet Company	134 6	18 1	10 0	115	169	40	iron, screw.
1,710	3,033	Stag	ditto „	„	John Burns and others	213 5	23 6	13 3	314	499	240	iron.
1,711	3,010	Lynx	ditto „	„	- - ditto	213 5	23 6	13 3	314	499	240	iron.
1,712	20,520	Leopard	ditto „	1858	P. Denny and another	223 9	27 1	14 7	435	691	320	iron.
1,713	20,882	Setang	ditto „	„	John Hamilton and others	136 0	21 2	10 4	108	202	120	iron.
1,714	16,246	Damascus	ditto „	1856	Peter Denny and another	253 5	32 0	22 2	825	1,214	200	iron, screw.
1,715	21,385	Palestine	ditto „	1858	John Burns and others	255 2	34 2	24 3	936	1,377	260	iron, screw.
1,716	6,380	Petrel	ditto „	1845	Alexander Watson and another	168 6	18 0	8 0	80	162	60	iron.
1,717	598	Oscar	ditto „	1850	J. H. Nash and others	159 6	23 2	13 5	198	330	75	iron, screw.
1,718	25,294	Ranger	ditto „	1858	Peter Coats and others	104 8	16 0	9 1	58	96	48	iron, screw.
1,719	25,890	Auguste Louise	ditto „	1854	H. L. Leligmann	139 3	19 0	10 0	116	187	40	iron, screw.
1,720	30,499	Governor Higginson	ditto „	1856	Calcutta and Burmah Steam Navigation Company.	208 0	27 1	16 2	365	599	160	iron, screw.
1,721	27,113	Plover	ditto 1859	1849	David Hutcheson and others	83 8	14 8	8 9	69	110	50	iron.
1,722	27,114	Lochlong	ditto „	1859	James Wilson and others	150 4	15 2	7 2	73	116	60	iron.
1,723	27,116	Vulcan	ditto „	1854	James M'Intyre	167 9	16 3	7 7	81	129	80	iron.
1,724	27,118	Taptee	ditto „	1859	Matthew Hodgart	128 7	18 0	8 8	97	142	30	iron, screw.
1,725	27,119	Pearl	ditto „	„	W. R. Coulborn	182 2	19 5	7 6	72	168	120	iron.
1,726	3,357	Cardiff Castle	ditto „	1844	Alexander Watson and another	173 5	19 3	8 8	67	101	60	iron.
1,727	27,121	Joanna	ditto „	1858	James M'Lean	64 0	11 3	4 7	19	25	6	screw.
1,728	27,733	Rebecca	ditto „	1859	Benjamin Simons	136 2	19 1	10 4	138	203	40	iron, screw.
1,729	27,743	Thistle	ditto „	„	John Cameron and another	184 5	25 2	12 5	206	387	155	iron, screw.
1,730	17,196	Corsair	ditto „	1857	David Sloan and others	150 1	22 2	12 0	179	264	60	iron, screw.

1,731	27,956	Cora Linn	ditto	„	1859	Nicol Handyside and others	145	9	18	5½	11	1	153	225	42	iron, screw.
1,732	27,957	"A"	ditto	„	1849	Forth and Clyde Navigation Company	65	5½	15	7½	7	4	42	52	20	iron, screw.
1,733	19,492	Australasian	ditto	1860	1857	James Burns and others	331	7	42	1	20	9	1,513	2,761	700	iron, screw.
1,734	10,186	Sir Isaac Newton	ditto	„	1853	J. P. Kidston and others	83	3	16	2	9	4	20	69	38	
1,735	27,960	"H"	ditto	„	1850	Forth and Clyde Navigation Company	65	5	15	0	7	2	41	51	20	iron, screw.
1,736	28,211	"I"	ditto	„	„	- - ditto	65	9	15	0	7	0	42	52	20	iron, screw.
1,737	28,212	"K"	ditto	„	„	- - ditto	65	6	15	0	7	0	42	52	20	iron, screw.
1,738	28,216	Olympus	ditto	„	1860	John Burns and others	276	8	36	0	26	0	1,220	1,794	250	iron, screw.
1,739	28,215	Heron	ditto	„	„	- - ditto	210	2	27	1	14	1	424	624	150	iron, screw.
1,740	28,217	Tuskar	ditto	„	„	A. G. Kidston	174	8	24	0	13	0	255	374	85	iron, screw.
1,741	28,220	Marathon	ditto	„	„	John Burns and others	274	0	36	0	25	0	1,213	1,784	250	iron, screw.
1,742	28,221	Ostrich	ditto	„	„	- - ditto	210	2	27	1	14	1	424	624	150	iron, screw.
1,743	3,160	Edinburgh Castle	ditto	„	1844	David Hutcheson and others	140	2	16	5	7	0	44	98	45	iron.
1,744	28,225	Hecla	ditto	„	1860	John Burns and others	274	1	36	2½	25	8½	1,214	1,785	250	iron, screw.
1,745	28,477	Atlas	ditto	„	„	- - ditto	276	9⅓	36	2½	26	0½	1,220	1,794	250	iron, screw.
1,746	28,479	Margaretha Stevenson	ditto	„	„	Marie E. Stevenson	110	6	17	0	9	9	66	114	40	iron, screw.
1,747	28,481	Antona	ditto	„	1859	David Sloan and others	166	9	23	1½	13	7	239	352	90	iron, screw.
1,748	28,482	Falcon	ditto	„	1860	A. A. Laird	174	4	24	1	13	3½	265	390	100	iron, screw.
1,749	28,483	Gareloch	ditto	„	1855	W. R. Coulborn	146	2	14	0	6	4⅓	42	66	50	iron.
1,750	28,484	Juno	ditto	„	1860	John Cameron and others	188	9	19	1	8	0	83	184	110	iron.
1,751	28,487	Ruby	ditto	„	„	James Alexander	188	4	18	5⅓	7	7½	66	176	100	iron.
1,752	28,492	Ailsa Craig	ditto	„	„	John Henderson and others	145	6	18	5½	11	1	153	225	–	iron, screw.
1,753	28,494	Giraffe	ditto	„	„	John Burns and others	270	2	26	1	13	0	360	677	290	iron.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1857	A. Montague	61	6	15	0	6	7	23	45	30	iron.
1,755	13,532	Stromboli	ditto	„	1856	James Burns and others	198	8	28	8	17	6	619	734	100	iron, screw.
1,756	28,883	Pioneer	ditto	„	1859	Robert Burns and others	66	5	13	4½	4	9	28	33	12	iron, screw.
1,757	28,489	Mail	ditto	„	1860	J. M. L. Campbell and others	179	5	18	1⅓	7	4½	100	159	85	iron.
1,758	24,658	John Bell	ditto	„	1854	John Bell	231	5	33	2	20	6	982	1,102	250	iron, screw.
1,759	3,053	Ariel	ditto	„	1847	James Thomson	173	3	23	8	13	2	206	417	190	iron.
1,760	28,895	Albion	ditto	„	1860	James Reid and others	165	0½	24	2	11	7½	160	307	150	iron.
1,761	29,271	Three Daisies	ditto	„	„	Robert M'Hutchison	65	6	16	1	6	6⅓	37	51	16	iron, screw.
1,762	29,275	Advance	ditto	1861	1861	William M'Coskry	107	1	18	6⅓	9	3	37	127	80	iron.
1,763	29,278	Lancefield	ditto	„	„	J. R. Napier	145	6	23	2	13	3½	172	280	60	iron, screw.
1,764	29,279	Coringa	ditto	„	„	Calcutta and Burmah Steam Navigation Company.	199	8	27	5	15	8	435	583	150	iron, screw.
1,765	29,280	Murray	ditto	„	1859	John Kirsoss and another	98	6	15	9½	7	8	59	92	30	iron, screw.
1,766	29,282	Moulmein	ditto	„	1861	Calcutta and Burmah Steam Navigation Company.	151	5	25	2	13	4	238	323	70	iron, screw.
1,767	29,284	Johnstone Castle	ditto	„	1860	Matthew Hodgart	139	2	20	1	9	7½	131	192	45	iron, screw.
1,768	26,842	Cantie Queen	ditto	„	1859	M. E. Robinow	85	1	18	1	8	5	59	88	20	iron, screw.
1,769	29,288	Jura	ditto	„	1861	J. B. Fyfe and another	82	4	20	0	9	4	60	87	35	screw.
1,770	17,197	Spunkie	ditto	„	1857	Archibald Denny	191	3	18	2½	7	6½	80	165	110	iron.
1,771	29,290	Rothesay Castle	ditto	„	1861	Alexander Watson	191	5	19	0	8	3	84	177	110	iron.
1,772	42,555	Neptune	ditto	„	„	J. R. Napier and another	201	7	18	7⅓	8	2	126	200	100	iron.
1,773	42,536	Ruby	ditto	„	„	W. R. Coulborn	209	2	19	5	8	0½	102	200	120	iron.
1,774	42,537	Sultan	ditto	„	„	Alexander M'Kellar	166	0	16	6½	7	2½	73	117	60	iron.
1,775	42,538	Fingal	ditto	„	„	David Hutcheson and others	185	5	25	4	12	9	352	462	120	iron, screw.
1,776	27,741	Ariel	ditto	„	1859	John Forsyth	64	5	17	2	8	2½	42	62	16	iron, screw.
1,777	42,540	St. Kilda	ditto	„	1861	Alexander M'Donald and others	100	0	21	1	10	3½	91	145	45	iron, screw.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10ths.	*Feet. 10ths.*	*Feet. 10ths.*				
1,778	20,289	Flying Dutchman	Glasgow 1861	1861	J. P. Kidstone and others	106 3	19 1	10 1	44	125	50	iron.
1,779	28,478	Athanasian	ditto „	1860	John Hutchison	182 2	25 1½	14 6	306	418	60	iron, screw.
1,780	28,213	Dunglass	ditto „	1857	W. R. Rintoul and others	68 3	17 7	6 7½	48	53	8	iron, screw.
1,781	28,214	Renfrew	ditto „	„	ditto	70 2½	17 6	6 7½	48	53	8	iron, screw.
1,782	42,541	Alliance	ditto „	„	George Mills	140 0	30 0	7 0½	51	112	85	iron.
1,783	43,681	Princess Royal	ditto „	1861	Matthew Langlands and another	200 5	28 2	15 5	494	652	150	iron, screw.
1,784	15,466	Vivandiere	ditto „	1856	A. G. Kidston	151 9	21 0	12 0	166	245	60	iron, screw.
1,785	42,542	Fairy	ditto „	1861	David Hutcheson and others	149 4	21 0	6 9½	87	150	75	iron.
1,786	14,582	Chesapeake	ditto „	1856	Alexander M'Kinnon	76 2	15 3	8 3	12	54	26	
1,787	43,684	Norte	ditto „	1861	William Tod	167 3	23 0½	12 3	263	353	60	iron, screw.
1,788	26,845	Prince of Wales	ditto „	1858	Blackwood and Gordon	160 2	17 6½	7 5½	67	141	100	iron.
1,789	43,687	Sidon	ditto „	1861	John Burns and others	275 6	36 2½	25 8	1,267	1,782	250	iron, screw.
1,790	43,690	Palermo	ditto „	„	Nicol Handyside and others	169 5	21 9	13 5	289	380	100	iron, screw.
1,791	43,691	Pladda	ditto „	„	A. G. Kidston	181 5	24 6	13 7	297	391	80	iron, screw.
1,792	43,692	Aviso	ditto „	„	William Tod	105 5	17 9½	8 5	84	120	60	iron, screw.
1,793	28,890	Kedar	ditto „	1860	John Burns and others	275 8	36 2½	25 7½	1,212	1,783	250	iron, screw.
1,794	27,128	Gem	ditto „	1858	E. R. Coulborn	122 0	18 0	7 8½	63	100	50	iron.
1,795	43,695	Express	ditto „	1861	George Lyall	222 5	30 1½	10 4	290	489	180	iron.
1,796	43,696	Morocco	ditto „	„	John Burns and others	275 5	36 2½	25 8	1,267	1,782	250	iron, screw.
1,797	26,004	Excelsior	ditto „	1855	John Hutchison	122 0	22 6	13 4	176	258	50	iron, screw.
1,798	1,891	Melita	ditto „	1853	Peter Denny and others	246 0	30 3	25 6	853	1,254	180	iron, screw.
1,799	15,700	Collier	ditto „	1848	William Mories and another	127 7	20 2	10 5½	132	194	40	iron, screw.
1,800	13,537	Samson	ditto „	1840	William Liddell and another	71 9	17 0	8 7½	14	60	32	
1,801	43,707	Jessie Brown	ditto „	1861	James M'Intosh	101 6½	20 0	8 8½	88	118	30	iron, screw.
1,802	22,511	*Rob Roy	Grangemouth 1850	1847	Carron Company	63 5	13 1	6 8	20	40	22	
1,803	17,690	*Forth	ditto 1855	1855	ditto	177 3	22 8	12 9	253	406	90	iron, screw.
1,804	13,542	Grange	ditto 1856	1856	ditto	178 5	25 1½	14 1	263	408	90	iron, screw.
1,805	18,240	Venus	ditto 1857	1857	John Strong and others	25 4	15 7	8 4	11	53	24	iron.
1,806	19,790	Chase	ditto 1858	1858	J. Burgess	64 4	17 6	7 6	35	51	12	
1,807	16,239	Sylph	ditto „	1856	J. C. Robertson and others	180 1	27 8	16 8	441	550	70	iron, screw.
1,808	25,099	Harmony	ditto 1859	1859	G. G. Mackay	75 0	15 7½	8 3	13	54	26	
1,809	28,676	Carron	ditto 1860	1860	Carron Company	181 0	25 7	14 0	286	447	106	iron, screw.
1,810	17,625	Clyde	ditto „	1851	ditto	181 4	22 0	14 0	274	403	90	iron, screw.
1,811	28,677	Thames	ditto „	1860	ditto	180 5	26 1	14 5½	340	454	106	iron, screw.
1,812	28,678	Pet	ditto 1861	1861	J. T. Salvesen and others	79 6	16 0	8 9	19	43	30	
1,813	—	*Lord Harris	Greenock 1853	1853	W. T. Templeton	148 4	16 5	7 1	110	164	60	iron.
1,814	7,487	*Powerful	ditto 1854	1848	C. C. Scott and another	73 7	15 6	8 7	17	68	35	

1,816	7,486	Dehance	- - -	ditto	-	„	[illegible]	Charles Scott and another	- - -	73	0	14	6	8	4	8	56	30	
1,817	5,848	Vixen	- - -	ditto	-	„	1848	Alexander Ferguson and others	- - -	70	7	14	8	8	9	17	70	33	
1,818	14,552	*Ranger	- - -	ditto	-	1855	1843	Robert Seaton and others	- - -	131	6	19	4	9	7	149	202	–	iron, screw.
1,819	- -	Stamboul	- -	ditto	-	„	1854	Henry Lamb and others	- - -	157	3	16	2	7	4	66	123	80	iron.
1,820	7,409	Alma	- - -	ditto	-	„	1855	Duncan Stewart - -	- - -	74	7	15	4	9	0	20	74	35	
1,821	7,413	*Restless	- - -	ditto	-	„	1851	W. Liddell and another	- - -	79	9	19	4	9	6	88	119	20	iron, screw.
1,822	7,418	*Pera	- - -	ditto	-	„	1854	James Baines - -	- - -	132	7	15	2	7	0	68	95	38	iron.
1,823	14,696	Terra	- - -	ditto	-	1856	1856	W. O. Taylor - -	- - -	120	6	18	3	9	1	89	130	40	iron, screw.
1,824	15,442	Mallacho	- -	ditto	-	„	„	Thomas Harrison - -	- - -	87	3	17	9	9	3	19	74	40	
1,825	22,507	Helen M'Gregor	-	ditto	-	„	1848	D. & J. Robertson - -	- - -	79	1	15	8	8	7	12	59	40	
1,826	7,517	Queen of Sheba	-	ditto	-	1857	1852	C. C. Scott and another	- - -	77	9	16	9	9	0	8	67	40	
1,827	6,362	Vigilant	- - -	ditto	-	1858	1848	W. Liddell and another	- - -	86	0	16	7	8	0	17	72	40	
1,828	21,571	Pearl	- - -	ditto	-	„	1858	John Hendry - -	- - -	177	8	26	6	14	7½	356	523	100	iron, screw.
1,829	27,263	Thetis	- - -	ditto	-	1859	1857	John Scott - -	- - -	162	2	17	1	6	7	95	151	70	iron.
1,830	27,268	William Burnley	-	ditto	-	„	1859	Mungo Campbell, jun.	- - -	77	0	14	0	4	7	22	44	20	iron, screw.
1,831	27,816	Scoter	- - -	ditto	-	„	„	William Latour - -	- - -	81	8	16	4	8	5	16	64	30	
1,832	28,227	Gem	- - -	ditto	-	1860	„	A. R. Orr and others -	- - -	64	5	17	6	7	4	35	52	20	screw.
1,833	28,228	Alpheus	- - -	ditto	-	„	1860	James Brown - -	- - -	81	6	16	2	7	9	26	75	50	iron.
1,834	28,233	San Enrique	- -	ditto	-	„	„	Rudolph Jelhdman -	- - -	81	6	16	2	7	9	26	75	50	iron.
1,835	28,235	San Joaquin	- -	ditto	-	„	„	- - ditto - -	- - -	73	7	18	4	9	3	60	77	16	screw.
1,836	28,966	Jane Cochran	- -	ditto	-	„	„	John & James Cochran	- - -	66	3	16	4	5	2	33	39	13	iron, screw.
1,837	28,967	James	- - -	ditto	-	„	1846	Robert Henry - -	- - -	224	0	26	6	18	3	599	739	60	iron, screw.
1,838	29,816	Lope de Vega	- -	ditto	-	1861	1861	C. C. Scott - -	- - -	68	7	16	2	7	7	6	54	25	
1,839	10,060	Queen	- - -	Inverness	-	1856	1846	Thomas Keenan -	- - -	64	7	12	2	6	3	20	30	15	iron, screw.
1,840	22,052	Beauty	- - -	ditto	-	1858	1858	William Latour -	- - -	72	8	15	2	7	5	35	52	15	iron, screw.
1,841	14,512	Scottish Maid	- -	Irvine	-	1857	1856	A. C. M'Kinlay -	- - -	81	0	19	0	10	0	26	103	50	
1,842	18,042	Forth	- - -	Kirkaldy	-	1856	1855	William Ford and others	- - -	131	7	19	5	8	1	87	138	70	iron.
1,843	14,681	Raith	- - -	ditto	-	„	1856	William Swan and others	- - -	72	8	15	2	7	5	35	52	15	iron, screw.
1,844	18,136	Royal Mail	- -	Kirkwall	-	1856	„	John Stranger and others	- - -	81	0	19	0	10	0	26	103	50	
1,845	7,864	*Britannia	- -	Leith	-	1851	1851	T. A. Wemyss - -	- - -	70	9	14	4	8	5	19	61	30	
1,846	20,427	*Samson	- - -	ditto	-	1853	1840	Jolliffe & Co. - -	- - -	88	3	16	8	9	8	28	101	—	
1,847	15,775	*Victor	- - -	ditto	-	„	1852	John Stoker - -	- - -	71	1	14	7	7	7	23	61	30	
1,848	7,736	*Goliah	- - -	ditto	-	„	„	D. R. M'Gregor - -	- - -	74	6	15	1	8	8	23	69	42	
1,849	19,731	Success	- - -	ditto	-	1854	1838	Daniel Robertson -	- - -	64	7	13	8	8	2	12	51	28	
1,850	3,465	Britannia	- -	ditto	-	„	1845	Barclay & Inkster -	- - -	165	6	21	2	10	7	178	298	150	iron.
1,851	7,713	Brilliant	- - -	ditto	-	„	1848	- - ditto - -	- - -	170	5	21	8	11	5	220	346	140	iron.
1,852	7,748	Best Bower	- -	ditto	-	„	1852	- - ditto - -	- - -	197	9	24	0	14	8	312	512	100	iron, screw.
1,853	11,136	Edina	- - -	ditto	-	„	1854	- - ditto - -	- - -	168	1	20	9	12	8	227	323	–	iron.
1,854	10,283	*Pharos	- - -	ditto	-	„	„	Commissioners of the Northern Lighthouses	-	182	0	25	3	14	8	300	524	120	iron.
1,855	7,834	*Leviathan	- -	ditto	-	„	1849	Edinburgh, Perth, and Dundee Railway Company.	-	157	6	32	9	8	4	301	417	420	iron.
1,856	7,835	*Robert Napier	- -	ditto	-	„	1850	- - ditto - -	- - -	129	6	23	3	8	5	144	234	–	iron.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS.			TONNAGE.		Horse Power.	—
						Length.	Breadth.	Depth of Hold.	Exclusive of Engine Room.	Gross Tonnage.		
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,857	7,844	*Snowdoun	Leith - 1855	1855	Barclay & Inkster	180 6	22 8	14 5	354	470	75	iron, screw.
1,858	7,735	*Alma	ditto - „	1854	M'Gregor & Galloway	81 2	15 2	8 8	31	62	40	
1,859	7,727	*Baltic	ditto - „	„	John Stewart	79 9	19 4	9 6	88	120	20	iron, screw.
1,860	7,752	Star	ditto - „	1847	William Nicholson	67 5	14 5	18 1	20	51	25	
1,861	15,773	Contest	ditto - 1856	1856	Helen Stokes and another	77 0	16 0	8 0	14	64	30	
1,862	15,776	Express	ditto - „	1848	Edinburgh, Perth, and Dundee Railway Company.	153 0	24 1	9 8	169	269	120	iron.
1,863	15,777	Thane of Fife	ditto - „	1847	- - ditto	141 0	18 3	9 7	107	171	70	iron.
1,864	15,778	Auld Reekie	ditto - „	„	- - ditto	141 5	19 1	9 1	103	163	68	iron.
1,865	15,779	Forth	ditto - „	1846	- - ditto	144 4	26 9	10 4	106	209	120	iron.
1,866	15,978	Energy	ditto - 1857	1856	M'Gregor & Galloway	80 4	16 4	8 0	17	68	30	
1,867	23,402	Alice	ditto - „	1854	James Peace and others	152 5	23 0	14 9	226	332	70	iron, screw.
1,868	7,717	Ivanhoe	ditto - „	1850	M'Gregor & Co.	161 0	21 0	11 8	179	263	70	iron, screw.
[illegible]	[illegible]	Blue Bonnet	ditto - „	1857	Hall & Pryer	83 4	17 2	9 5	14	73	35	
1,870	19,161	Holyrood	ditto - „	„	M. C. Gibson	178 8	24 4	12 4	295	381	70	iron, screw.
1,871	15,459	Stirling	ditto - „	1856	D. R. M'Gregor and others	198 8	28 5	17 7	638	763	100	iron, screw.
1,872	26,679	Prompt	ditto - 1858	1853	James Hay and others	201 0	25 0	14 0	344	506	160	iron, screw.
1,873	3,820	Gertrude	ditto - „	1855	Robert Barclay and others	199 4	24 4	14 5	335	493	75	iron.
1,874	17,017	Dundalk	ditto - „	1844	Joseph Falconer	179 0	26 1	15 4	286	552	250	iron.
1,875	6,341	Ossian	ditto - „	1855	James Hay and others	213 0	26 3	16 5	471	692	120	iron, screw.
1,876	22,020	Carrier	ditto - „	1858	Edinburgh, Perth, and Dundee Railway Company.	124 4	24 7	8 5	131	243	120	iron.
1,877	16,155	Corsair	ditto - 1859	1852	Alexander Bayne and others	79 4	15 7	8 8	12	59	36	
1,878	22,024	Orient	ditto - „	1859	Robert Barclay and others	200 1	27 7	15 2	417	613	140	iron, screw.
1,879	22,516	Gnome	ditto - „	1856	- - ditto	187 3	26 1	14 7	355	522	80	iron, screw.
1,880	22,027	Stokers	ditto - „	1859	E. E. Oliver	84 7	16 5	8 8	19	68	30	
1,881	21,922	Ben-my-Chree	ditto - 1860	1845	James Mackillican	152 2	23 4	12 5	103	257	120	iron.
1,882	28,752	Vistula	ditto - „	1860	Robert Barclay and others	213 1	27 6	15 0	430	633	110	iron, screw.
1,883	1,335	Times	ditto - „	1851	Joseph Falconer	160 4	21 0	13 5	213	314	70	iron, screw.
1,884	28,756	Tartar	ditto - 1861	1861	William Nicholson	80 7	16 8	9 0	23	70	30	
1,885	28,757	Dwina	ditto - „	„	Robert Barclay and others	223 4	27 7	15 0	537	667	112	iron, screw.
1,886	28,758	Osborne	ditto - „	„	M. C. Gibson	206 7	26 5	14 3	441	575	100	iron, screw.
1,887	22,940	Temora	ditto - „	1855	James Hay and others	215 0	26 2	16 4	448	659	120	iron, screw.
1,888	28,755	Balbinie	ditto - „	1861	Edinburgh, Perth, and Dundee Railway Company.	199 6	40 4	8 9	357	533	200	
1,889	14,953	Alliance	ditto - „	1857	Alexander Laing and another	73 3	15 5	8 6	13	55	28	
1,890	22,023	Czar	ditto - „	1861	Alexander Dunsmure and others	216 1	29 0	20 3	715	895	185	iron, screw.

1,893	- -	*Jane - - -	Perth -	1853	1853	James Falshaw - - - - - -	73	5	19	0	5	7	51	72	—	
1,894	27,493	*Newport - - -	ditto -	„	„	W. Cuckson - - - - - -	119	0	21	7	8	9	65	163	—	
1,895	6,389	Lochfine - - -	Port Glasgow	1851	1847	Dumbarton Steam Boat Company - -	74	5	18	0	7	6	43	62	20	iron, screw.
1,896	19,728	*Merlin - - -	ditto -	„	1850	J. O. Lever - - - - - -	150	8	16	1	8	0	104	159	80	iron.
1,897	19,724	*Scottish Maid - -	ditto -	„	1846	John Laird and Sons - - - - -	65	4	13	3	7	8	14	46	25	
1,898	6,390	Chancellor - -	ditto -	1853	1853	Dumbarton Steam Boat Company - -	164	7	16	6	7	3	70	123	75	iron.
1,899	10,957	Conquest - - -	ditto -	1857	1840	D. & J. Robertson - - - - -	68	6	16	8	8	4	20	67	32	
1,900	19,168	Dumbarton - -	ditto -	1858	1858	J. Watson - - - - - - -	143	5	17	2	6	9	72	115	65	iron.
1,901	19,169	Beaver - - -	ditto -	„	„	Robert Moffat - - - - - -	179	8	19	4	7	2	45	72	72	
1,902	26,843	Queen of the Isles -	ditto -	1860	1860	William Lang - - - - - -	116	0	20	4	10	0	106	158	40	steel, screw.
1,903	29,189	Chieftain - - -	ditto -	1861	„	- - ditto - - - - - -	85	4	19	1	9	2	59	87	35	iron, screw.
1,904	20,522	Salesman - -	di to -	„	1858	- - ditto - - - - - -	130	5	19	8	11	4	116	172	80	iron, screw.
1,905	29,191	Kate - - -	ditto -	„	1861	Thomas Hill - - - - - -	193	0	25	1	14	3	371	488	120	iron, screw.
1,906	22,090	Heather Bell - -	Wick -	1858	1858	Peter Cristall and others - - - -	135	5	18	1	8	3	95	152	60	iron.
1,907	21,702	Countess of Galway -	Wigtown -	1847	1847	Galloway Steam Navigation Company - -	165	5	24	4	14	3	284	452	200	iron.
1,908	18,739	Maid of the May -	Ballina -	1857	1857	William Wright - - - - - -	79	7	18	0	9	4	37	86	35	
1,909	- -	*Grand Junction -	Belfast -	1844	1843	William Dargan - - - - - -	94	6	18	0	10	0	62	130	60	
1,910	- -	*Countess of Caledon -	ditto -	„	1838	- - ditto - - - - - -	73	6	11	4	6	7	16	48	30	
1,911	8,041	Blenheim - -	ditto -	1853	1848	Belfast Steam Ship Company - -	207	7	25	0	16	0	319	625	900	iron.
1,912	22,936	Semaphore - -	ditto -	1855	1855	Belfast Screw Steam Shipping Company -	206	3	24	2	15	6	381	560	120	
[illegible]	[illegible]	Premier - - -	ditto -	1856	1842	T. Keenan - - - - - -	66	7	15	4	7	5	17	54	30	
1,914	13,302	Allies - - -	ditto -	„	1856	Arthur Alexander and others - - -	82	0	16	9	9	0	16	69	38	
1,915	13,303	Vesta - - -	ditto -	„	„	Robert Alexander and others - - -	76	0	15	3	8	0	13	56	29	
1,916	18,471	Wonder - - -	ditto -	1857	1857	- - ditto - - - - - -	112	6	18	0	10	0	23	127	60	iron.
1,917	15,209	Samson - - -	ditto -	„	1844	Clark and Waterston - - - - -	67	7	15	0	7	8	17	56	30	
1,918	21,474	Adela - - -	ditto -	1859	1859	William Malcomsom and others - - -	212	9	22	8	11	2	175	398	194	iron.
1,919	8,200	Pilot - - -	ditto -	1860	1844	T. Keenan - - - - - -	141	0	16	3	7	7	57	108	60	iron.
1,920	21,381	Hero - - -	ditto -	1861	1858	John Brown and others - - - -	181	0	19	1½	7	1½	84	157	80	iron.
1,921	- -	*Star - - -	Cork -	1843	1839	Sir Richard Musgrave - - - -	75	9	14	3	6	3	33	61	—	
1,922	10,146	*Queen - - -	ditto -	1844	1838	P. Scott - - - - - - -	90	5	13	4	6	5	47	73	35	
1,923	10,144	*Prince - - -	ditto -	„	1843	R. Hall and others - - - -	130	9	17	7	7	9	97	150	75	
1,924	10,145	*Princess - - -	ditto -	„	1841	T. S. Reeves and others - - - -	132	7	17	5	8	2	113	170	75	
1,925	- -	*Kingston - - -	ditto -	1846	1829	James Denny - - - - - -	76	6	17	9	9	0	34	106	—	
1,926	11,576	*Pilot - - -	ditto -	1847	1847	J. A. Harley and others - - - -	79	0	16	3	8	8	23	80	35	
1,927	11,575	*Royal Alice - -	ditto -	„	„	J. F. Maguire and others - - - -	145	4	18	4	8	0	105	144	100	iron.
1,928	10,137	*Black Eagle - -	ditto -	1851	1850	John Dawson and others - - - -	79	9	15	8	9	1	28	81	45	
1,929	8,569	*Queenstown - -	ditto -	„	1851	Charles Sugrue and others - - -	113	7	14	3	6	9	133	158	32	iron.
1,930	8,567	*Victoria - - -	ditto -	1852	1852	- - ditto - - - - - -	134	0	15	1	7	6	82	111	50	iron.
1,931	10,138	*Telegraph - -	ditto -	„	„	John Dawson and others - - - -	74	4	15	4	8	4	21	70	35	
1,932	10,139	*Little Paddy - -	ditto -	1853	1829	G. Sutton - - - - - - -	50	0	13	0	7	6	28	35	18	
1,933	8,599	*Phœnix - - -	ditto -	1854	1831	A. & J. W. Savage - - - - -	63	6	16	3	6	7	33	61	24	
1,934	8,568	*Albert - - -	ditto -	„	1854	Charles Sugrue and others - - -	133	3	15	1	7	7	77	107	50	iron.
1,935	8,570	*Fairy - - -	ditto -	„	1853	- - ditto - - - - - -	95	8	13	0	6	7	38	56	24	iron.

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	——
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
1,936	2,306	Willing Mind	Cork - 1856	1855	J. A. Harley and others	84 5	17 0	9 5	52	82	45	
1,937	1,004	Pelican	ditto - 1859	1850	Ebenezer Pike and others	205 6	28 3	15 8	426	627	140	iron.
1,938	8,321	Preussischer Adler	ditto - 1860	1845	- - ditto	244 7	33 0	17 0	628	997	400	iron.
1,939	8,483	Sabrina	ditto - „	1844	- - ditto	219 6	27 5	14 8	404	642	300	iron.
1,940	409	Falcon	ditto - „	1854	- - ditto	211 0	28 0	15 0	412	606	100	iron, screw.
1,941	5,856	Osprey	ditto - „	1855	- - ditto	214 2	20 1	15 6	426	626	100	iron, screw.
1,942	8,322	Dodo	ditto - „	„	- - ditto	211 4	35 8	15 0	629	926	100	iron, screw.
1,943	11,600	Bittern	ditto - „	1856	- - ditto	212 9	30 0	15 1	452	665	140	iron, screw.
1,944	23,043	Albatross	ditto - „	1850	- - ditto	197 2	29 8	15 0	406	597	140	iron, screw.
1,945	27,992	Ibis	ditto - „	1860	- - ditto	254 4	31 2	15 8	609	895	154	iron, screw.
1,946	28,027	Daisy	ditto - „	1859	- - ditto	70 6	14 1	7 7	11	42	24	
1,947	27,994	Halcyon	ditto - „	1860	- - ditto	215 5	29 0	15 5	467	686	115	iron, screw.
1,948	14,553	William Wallace	ditto - „	1848	Robert Seaton	75 8	16 7	8 2	10	59	38	
1,949	14,554	Robert Bruce	ditto - „	1852	- - ditto	91 8	18 8	8 2	42	83	45	
1,950	15,272	Arran Castle	ditto - „	1830	W. D. Seymour	101 7	16 6	8 3	48	94	45	
1,951	8,437	Prince Arthur	ditto - 1861	1851	J. F. Maguire and others	153 9	16 6	7 2	105	143	80	iron.
1,952	23,045	Cormorant	ditto - „	1853	Ebenezer Pike and others	259 9	36 2	17 5	852	995	180	iron, screw.
1,953	27,999	Lily	ditto - „	1861	- - ditto	120 8	15 2	6 9	56	79	40	iron.
1,954	29,423	Citizen	ditto - „	„	Selby, Clare and others	160 0	17 7	7 1	73	129	80	iron.
1,955	29,427	Lee	ditto - „	„	- - ditto	160 0	17 7	7 1	73	129	80	iron.
1,956	16,833	Irishman	Drogheda - 1857	1834	Drogheda Steam Packet Company	144 0	21 7	13 4	189	386	200	
1,957	16,801	Faugh o'Ballagh	ditto - „	1844	- - ditto	177 8	31 8	14 0	296	560	392	iron.
1,958	16,804	Brian Borsimhe	ditto - „	1846	- - ditto	180 0	27 1	15 1	266	583	310	iron.
1,959	16,807	St. Patrick	ditto - „	1845	- - ditto	184 3	26 4	14 7	269	571	336	iron.
1,960	16,806	Leinster Lass	ditto - „	1849	- - ditto	200 0	27 4	14 7	308	629	372	iron.
1,961	8,806	*Birmingham	Dublin - 1827	1826	City of Dublin Steam Packet Company	140 8 in.	25 0	14 8 in.	255	- -	140	
1,962	- -	*Britannia	ditto - 1828	1823	Charles Hurry	73 9 in.	18 9 in.	8 5 in.	45	—	—	
1,963	8,779	*Ballinasloe	ditto - 1829	1829	City of Dublin Steam Packet Company	138 1 in.	24 2 in.	7 2 in.	191	- -	170	
1,964	8,780	*Mersey	ditto - 1835	1824	- - ditto	143 9 in.	21 2 in.	12 2 in.	196	- -	120	
1,965	8,794	Duke of Cambridge	ditto - 1838	1838	- - ditto	158 1	23 5	16 5	265	498	220	
1,966	8,751	Royal William	ditto - „	1837	- - ditto	172 5	24 6	16 6	283	525	270	
1,967	8,444	Vanguard	ditto - 1843	1843	Dublin and Glasgow Sailing and Steam Packet Company.	182 9	26 3	16 4	295	626	300	
1,968	8,782	*Britannia	ditto - „	1825	City of Dublin Steam Packet Company	136 0	24 3	14 0	219	- -	160	
1,969	12,236	*Dover Castle	ditto - „	1833	- - ditto	111 6	15 9	14 1	114	177	70	
1,970	8,783	Albert	ditto - 1845	1845	- - ditto	146 5	23 0	13 6	210	450	160	iron.

1,972	13,399	*Isle of Bute	ditto	„	[illegible]	[illegible]												
1,973	8,807	*Emerald	ditto	„	1846	City of Dublin Steam Packet Company	130	0	20	0	12	3	180	250	60	iron, screw
1,974	13,400	*Pilot	ditto	„	1843	Thomas Joliffe	84	2	16	7	9	0	39	109	60	
1,975	8,785	*Diamond	ditto	„	1846	City of Dublin Steam Packet Company	130	0	20	0	12	5	184	256	60	
1,976	8,808	*Fairy	ditto	1849	1849	- - ditto	129	0	16	3	8	3	81	153	65	iron.
1,977	8,787	Eblana	ditto	„	„	- - ditto	205	5	25	2	15	7	304	572	350	iron.
1,978	8,786	Duchess of Kent	ditto	„	1838	- - ditto	155	2	23	0	15	0	217	411	250	
1,979	8,788	Prince	ditto	1851	1839	Dublin and Liverpool Steam Ship Building Company.	164	9	23	6	16	2	303	536	270	
1,980	8,789	Princess	ditto	„	„	- - ditto	165	9	23	7	16	0	293	520	270	
1,981	8,810	Trafalgar	ditto	„	1848	- - ditto	189	0	28	5	17	8	365	677	350	iron.
1,982	12,225	*Erin-go-Bragh	ditto	„	1840	- - ditto	126	4	22	4	10	9	222	324	100	iron.
1,983	8,665	*Herald	ditto	„	1851	Dublin and Glasgow Sailing and Steam Packet Company.	200	0	24	2	13	2	283	529	100	iron.
1,984	8,790	Prince of Wales	ditto	„	1846	Dublin and Liverpool Steam Ship Building Company.	174	1	21	6	11	4	205	340	80	iron.
1,985	8,811	Prince Arthur	ditto	„	1851	City of Dublin Steam Packet Company	195	0	23	2	12	3	204	378	220	iron.
1,986	13,398	*Mona	ditto	1852	1831	Hugh Sheridan	103	2	15	8	9	1	68	125	70	
1,987	523	Duke of Cornwall	ditto	„	1842	British and Irish Steam Packet Company	170	8	26	4	17	0	325	607	360	
1,988	13,694	Foyle	ditto	„	1848	- ditto	196	5	25	8	16	8	444	704	400	iron.
1,989	12,348	*Adeline	ditto	1853	1828	C. Pearson	70	5 in.	17	11 in.	10	9 in.	35	67	40	
1,990	8,778	St. Columba	ditto	1854	1847	City of Dublin Steam Packet Company	205	3	26	4	15	1	206	469	375	iron.
1,991	8,691	*Standard	ditto	1855	1854	Malcolmson & Co.	174	5	24	9	13	7	294	422	100	iron, screw.
1,992	25,051	Sea Flower	ditto	„	1855	A. W. Lawe	58	3	11	4	6	8	4	23	20	iron, screw.
[illegible]	[illegible]	[illegible]	ditto	1857	1853	John Ennis and others	192	3	27	9	16	4	296	542	150	iron, screw.
1,994	8,809	Iron Duke	ditto	„	1844	Sir J. K. James and others	222	0	28	2	17	2	386	733	320	iron.
1,995	11,539	Artizan	ditto	„	1856	Midland Great Western of Ireland Railway Company.	113	3	12	1	6	5	34	54	40	iron.
1,996	15,465	Duchess of Argyle	ditto	„	1848	- - ditto	150	9	15	1	6	6	53	85	60	iron.
1,997	9,062	Mars	ditto	1858	1852	John Ennis and others	179	8	19	0	8	4	144	229	70	iron.
1,998	21,184	Lorton	ditto	„	1855	Midland Great Western of Ireland Railway Company.	67	6	14	0	6	5	28	41	30	iron, screw.
1,999	2,188	Havelock	ditto	„	1858	Joseph Boyce and others	223	2	26	2	14	0	339	629	288	iron.
2,000	22,542	Midge	ditto	„	„	Corporation for Improving Dublin Harbour	97	2	18	0	9	4	45	87	24	screw.
2,001	8,800	Windsor	ditto	1859	1846	Sir J. K. James, Bart., and another	246	5	28	4	16	4	512	812	325	iron.
2,002	10,161	Hecla	ditto	„	1854	Hugh Sheridan and others	72	7	15	1	8	0	18	54	30	
2,003	15,991	Nicolai 1st	ditto	1860	1839	James Stirling	186	7	29	5	17	3	415	658	240	
2,004	20,798	De Brus	ditto	„	1858	C. G. Palgrave and others	146	7	20	1	11	5	178	261	40	iron, screw.
2,005	28,718	Leinster	ditto	„	1860	City of Dublin Steam Packet Company	343	0	35	0	19	0	386	1,383	700	iron.
2,006	27,699	Bulldog	ditto	„	1859	Hugh Sheridan and others	79	4	16	3	9	5	17	65	30	
2,007	28,720	Ulster	ditto	„	1860	City of Dublin Steam Packet Company	336	7	35	2	18	8	539	1,421	750	iron.
2,008	28,722	Connaught	ditto	„	„	- - ditto	338	0	35	2	18	8	450	1,412	700	iron.
2,009	28,723	Star	ditto	„	„	Stirling and Cowper	160	2	21	2	12	9	186	274	85	iron, screw.
2,010	28,724	Munster	ditto	„	„	City of Dublin Steam Packet Company	336	6	35	2	18	8	541	1,432	750	iron.
2,011	28,725	Torch	ditto	„	„	Stirling and Cowper	160	2	21	2	12	9	186	274	85	iron, screw.
2,012	29,527	Ballymurtagh	ditto	1861	1860	Wicklow Copper Mine Company	67	2	15	0	5	1	28	41	16	iron, screw.
2,013	28,334	Lioness	ditto	„	„	John Walsh	82	5	16	3	8	8	16	66	30	
2,014	28,573	William Hall	ditto	„	„	Hugh Sheridan and others	85	9	17	3	8	9	22	75	35	
2,015	29,535	Pilot	ditto	„	„	David and John Renwick	88	4	18	1	9	5	33	90	40	

RETURN of Steam Vessels Registered in the United Kingdom on or before the 1st day of January 1862, &c.—*continued.*

No.	Official Number.	VESSELS' NAMES.	Port and Date of Registry.	Date of Build.	REGISTERED OWNERS.	DIMENSIONS. Length.	Breadth.	Depth of Hold.	TONNAGE. Exclusive of Engine Room.	Gross Tonnage.	Horse Power.	—
						Feet. 10*ths.*	*Feet.* 10*ths.*	*Feet.* 10*ths.*				
2,016	29,480	Challenge - -	Dublin - 1861	1860	John Walsh - - - - - - -	87 3	16 6	8 9	21	75	48	
2,017	17,018	Pride of Erin - -	Dundalk - 1847	1847	Dundalk Steam Packet Company - - -	194 8	26 2	15 7	377	661	356	iron.
2,018	17,026	*James Watt - -	ditto - 1853	1835	Thomas Keenan - - - - - -	79 4	16 8	8 7	24	103	50	
2,019	22,810	Earl of Erne - -	ditto - 1855	1855	Kelly & Co. - - - - - -	219 4	31 5	14 7	405	643	300	iron.
2,020	17,032	Enterprise - -	ditto - 1856	1856	N. T. Coleman and others - - - -	221 5	30 6	15 1	446	708	320	iron.
2,021	25,048	Despatch - - -	ditto - 1857	1855	Dundalk Steam Packet Company - - -	190 4	25 1	14 0	294	469	—	
2,022	21,480	Father Daly - -	Galway - 1860	1859	J. O. Lever and others - - - -	100 8	15 0	6 1	37	54	20	iron, screw.
2,023	227	*Rose - - -	Limerick - 1854	1845	London and Limerick Steam Ship Company -	119 0	20 4	12 9	151	249	60	iron, screw.
2,024	437	*European - -	ditto - „	1851	- - ditto - - - - - -	171 7	23 9	14 4	300	444	100	iron, screw.
2,025	823	Holyrood - - -	ditto - „	1852	- - ditto - - - - - -	191 5	25 0	15 5	358	533	100	iron, screw.
2,026	5,847	Mangerton - -	ditto - 1855	1855	- - ditto - - - - - -	203 2	25 7	16 1	364	535	130	iron, screw.
2,027	12,502	Rydal - - -	ditto - 1859	1847	R. Ryan - - - - - - -	75 2	17 8	8 7	17	69	45	
2,028	1,541	Shamrock - -	Londonderry 1847	„	Glasgow and Londonderry Steam Packet Company.	186 5	25 9	16 5	325	618	300	
2,029	2,362	*William M'Cormick -	ditto - 1854	1854	Londonderry Steam Boat Company - -	213 5	26 6	16 1	353	685	320	iron.
2,030	6,344	Ardentinny - -	ditto - 1858	1851	W. Coppin - - - - - -	163 4	16 0	6 5	69	109	72	iron.
2,031	18,180	Lady Franklin - -	ditto - 1860	1860	- - ditto - - - - - -	119 6	19 2	10 0	87	146	80	
2,032	13,531	Enniskillen - -	ditto - 1861	1854	Londonderry Steam Boat Company - -	212 6	25 9	- -	464	663	300	iron.
2,033	19,101	*Annsbro' - - -	Newry - 1855	1846	Charles Murland - - - - - -	94 6	17 2	8 8	62	106	—	
2,034	25,063	Robert Burns - -	ditto - 1859	1857	Dundrum and Newcastle Steam Packet Company.	106 0	18 5	8 0	59	118	40	iron, screw.
2,035	11,564	Mystery - - -	ditto - „	1856	Dundalk Steam Packet Company - - -	143 3	19 2	10 8	134	197	40	iron, screw.
2,036	4,615	Helena - - -	ditto - 1861	1854	Robert M'Cracken and others - - -	137 0	17 0	10 7	128	188	30	iron, screw.
2,037	20,516	*Commerce - -	Sligo - 1843	1824	William Middleton and others - - -	74 8	15 8	7 6	44	74	45	
2,038	12,855	*Janet - - -	ditto - 1854	1853	Middleton and Pollexfen - - - -	76 2	10 5	6 3	34	46	18	screw.
2,039	12,859	Sligo - - -	ditto - 1857	1857	- - ditto - - - - - -	163 9	22 0	11 0	192	282	65	iron, screw.
2,040	341	*Diana - - -	Waterford - 1849	1849	Malcolmson, Brothers - - - - -	183 2	23 9	13 6	390	527	100	iron.
2,041	578	*Citizen - - -	ditto - „	1846	- - ditto - - - - - -	140 6	19 3	12 0	167	236	30	iron.
2,042	14,217	*William Penn - -	ditto - 1850	1833	Waterford Commercial Steam Navigation Company.	160 3 in.	25 4 in.	16 10 in.	301	- -	200	
2,043	6,423	*Duncannon - -	ditto - „	1837	- - ditto - - - - - -	109 8	18 2	9 3	71	139	65	iron.
2,044	14,209	*Mars - - -	ditto - „	1849	- - ditto - -	184 3	25 2	15 3	278	540	90	

2,045	67	*Dublin	ditto	„	[illegible]	[illegible]											
2,046	14,202	*Camilla	ditto	„	1844	Waterford Commercial Steam Navigation Company.	175	5	22	7	14	8	298	454	340	iron.
2,047	64	*Magnet	ditto	1852	„	Malcolmson, Brothers	187	0	23	9	13	6	371	529	140	iron.
2,048	5	*Ceres	ditto	„	1852	- - ditto	199	0	23	4	14	7	382	581	100	iron, screw.
2,049	206	*Ondine	ditto	„	„	- - ditto	195	0	22	0	16	0	309	503	80	iron, screw.
2,050	24,827	*Sylph	ditto	1853	1853	- - ditto	179	0	22	4	15	8	256	445	140	iron, screw.
2,051	66	*Lion	ditto	„	1847	- - ditto	215	4	25	4	14	9	551	729	250	iron.
2,052	4	*Vesta	ditto	„	1853	- - ditto	199	9	24	7	14	6	430	616	100	iron, screw.
2,053	14,204	*Ranger	ditto	1854	1846	- - ditto	181	0	20	0	13	6	308	407	40	iron, screw.
2,054	14,218	Shamrock	ditto	1855	1836	Waterford Commercial Steam Navigation Company.	130	7	17	4	8	8	136	191	80	iron.
2,055	14,229	*Nora	ditto	„	1850	- - ditto	208	2	25	0	15	9	492	717	240	iron, screw.
2,056	8,589	Brenda	ditto	1856	1855	Malcolmson, Brothers	212	0	25	0	17	0	601	772	120	iron, screw.
2,057	8,591	Minna	ditto	„	1856	- - ditto	212	0	26	0	17	0	615	774	264	iron, screw.
2,058	8,600	Aurora	ditto	„	„	- - ditto	205	5	26	0	15	2	401	589	130	iron, screw.
2,059	14,201	Adonis	ditto	1857	1847	- - ditto	199	8	25	2	14	1	335	493	100	iron, screw.
2,060	150	Malvina	ditto	1859	1853	- - ditto	227	5	24	8	14	0	344	532	100	iron, screw.
2,061	8,146	Cambria	ditto	„	1845	- - ditto	163	5	22	2	11	3	198	315	140	iron.
2,062	27,845	Iberia	ditto	„	1859	- - ditto	219	6	30	2	17	1	627	803	240	iron, screw.
2,063	27,846	Una	ditto	„	„	- - ditto	259	7	30	2	20	8	1,006	1,236	250	iron, screw.
2,064	27,847	Gipsy	ditto	„	„	William Malcolmson and others	205	8	30	2	15	9	470	691	250	iron, screw.
2,065	27,848	Leda	ditto	„	„	Malcolmson, Brothers	219	4	30	2	17	1	626	803	250	iron, screw.
2,066	3,065	Beaver	ditto	1860	1854	William Malcolmson and others	155	9	23	0	13	4½	215	316	60	iron, screw.
2,067	199	Earl of Auckland	ditto	„	1848	- - ditto	153	0	25	0	11	7	215	316	60	iron, screw.
2,068	27,850	Zephyr	ditto	„	1860	- - ditto	209	7	28	3	14	9	462	679	250	iron, screw.
2,069	28,896	Eva	ditto	„	„	- - ditto	250	0	30	0	21	1	919	1,170	160	iron, screw.
2,070	28,900	Beta	ditto	1861	1861	- - ditto	219	8	30	0	16	9	508	747	160	iron, screw.
2,071	28,897	Tintern	ditto	„	„	- - ditto	126	7	19	2	8	8	79	146	70	iron.
2,072	29,542	Ada	ditto	„	„	- - ditto	250	0	30	0	21	1	967	1,169	260	iron, screw.
2,073	29,543	Nora	ditto	„	„	- - ditto	177	6	26	3	14	2	334	432	100	iron, screw.
2,074	29,544	Ida	ditto	„	„	- - ditto	200	0	26	9	15	9	492	626	90	iron, screw.
2,075	29,545	Era	ditto	„	„	- - ditto	201	5	24	0	15	0	437	560	90	iron, screw.
2,076	29,547	Avoca	ditto	„	„	- - ditto	251	5	32	0	21	1	1,103	1,301	260	iron, screw.
2,077	8,070	Firefly	Wexford	1857	1845	H. W. Hartnel	167	9	25	0	11	5	208	330	160	iron.
2,078	20,250	Erin	ditto	1858	1858	Richard Devereux	81	5	16	1	8	9	17	68	40	
2,079	23,922	Troubadour	ditto	1860	1841	Wexford Steam Ship Company	208	5	32	8	13	8	387	615	180	iron.

Number of Vessels	2,079
Amount of Register Tonnage	494,895
Amount of Gross Tonnage	758,377

General Register and Record Office of Seamen and Shipping,
London, 5 May 1862.

J. H. Brown,
Registrar General of Seamen and Shipping.

INDEX.

VESSELS' NAMES.	No. of Reference.
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Admiral Cator	722
Admiral Kanaris	385
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Adriatic	549
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STEAM VESSELS.

RETURN of the whole of the Regis
Steam Vessels of the United Kingd
the 1st day of January 1862; distingu
Vessels built of Iron, and also Vessels l
Screw Propellers, and giving the Ag
Number of Vessels, and Amount of To
with an Alphabetical Index.

(*Mr. Thomas Baring.*)

Ordered, by The House of Commons, *to be Pri*
12 *June* 1862.

[*Price* 8*d.*]

319.

Under 12

845

AN

ABSTRACT OF THE RETURNS

MADE TO THE

LORDS OF THE COMMITTEE OF PRIVY COUNCIL FOR TRADE,

OF

WRECKS AND CASUALTIES

WHICH OCCURRED ON AND NEAR THE

COASTS OF THE UNITED KINGDOM,

From the 1*st January to the* 31*st December* 1861.

WITH

A Statement of the Number of Lives lost and saved; of the Amounts granted out of the Mercantile Marine Fund as Rewards for the Salvage of Life, for Contributions towards the Maintenance of Life Boats, and for Expenses in connexion with the Mortar and Rocket Apparatus for saving Life, during the same Period; and a Précis of the Special Inquiries instituted into the Causes of such Wrecks and Casualties, by order of the Board of Trade.

With Charts.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE EDWARD EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1862.

2302.

CHART

SHEWING THE WRECKS AND CASUALTIES

ON THE COASTS OF

ENGLAND & WALES

during 1861.

COMPILED FROM THE BOARD OF TRADE

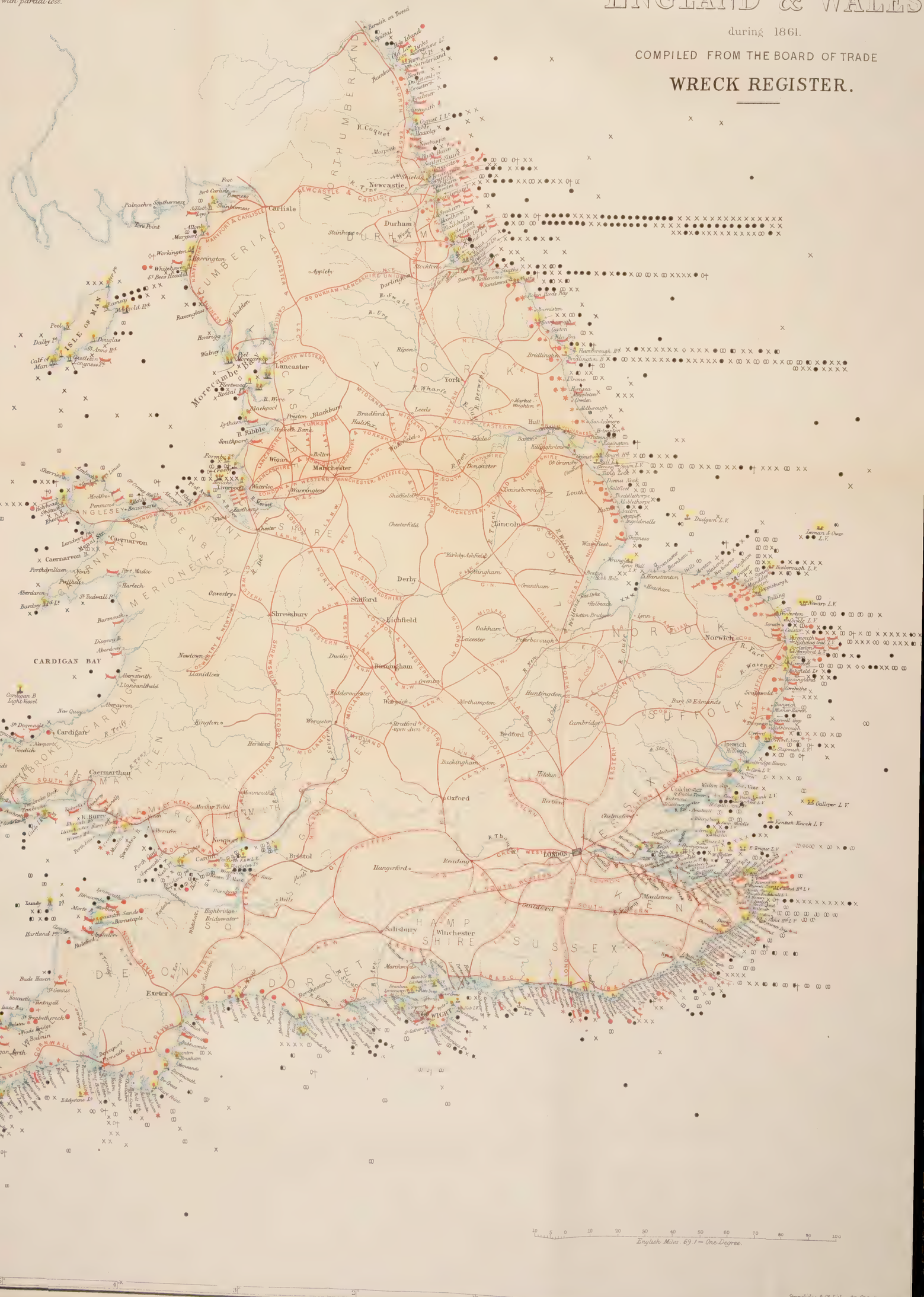
WRECK REGISTER.

SYMBOLS.

the total loss of a Ship otherwise than by Collision.
the total loss of a Fishing Boat.
the partial loss of a Ship otherwise than by Collision.
the partial loss of a Fishing Boat.
Sailing Ships in Collision with total loss.
Sailing Ships in Collision with Steam Ships with total loss
Steam Ships in Collision with total loss.
Sailing Ships in Collision with partial loss.
Sailing Ships in Collision with Steam Ships with partial loss.
Steam Ships in Collision with partial loss.

Apparatus for Saving Life.

- *Life Boat Station.*
- *Rocket Apparatus Station.*
- *Mortar Apparatus Station.*
- *Life Belt Station.*



10 5 0 10 20 30 40 50 60 70 80 90 100

English Miles 69.1 = One Degree.

Standidge & Co. Litho. 36, Old Jewry, E.C.

Observations to accompany the Wreck Return of the Board of Trade. 1861.

Comparison of 1861 with former years. Casualties have increased.

The number of wrecks and casualties from causes other than collisions, reported during the year 1861, exceeds the number reported during any of the preceding nine years. It is 261 in excess of the annual average of the last six years. It will be seen from Table 24 that the numbers have been steadily increasing of late years. In 1857 the number of casualties other than collisions was 866, in 1858 it was 869, in 1859 it was 1067, in 1860, 1081, and in 1861, 1171. This increase is owing in a great extent to the gales of January, February, and November. The number of casualties other than collisions in these gales alone was 465.

Collisions have not increased proportionately.

The number of collisions during 1861 is slightly in excess of the collisions in 1860, but it is below the number in 1859. The numbers are, collisions in 1859, 349, in 1860, 298, and in 1861, 323. On the whole, therefore, the increase in the collisions is not proportionately so great as the increase in the other casualties.

Number of lives lost in 1861 greater than the number lost in 1860, but less than the number lost in 1854 and 1859.

The increase in the number of casualties has been attended with an increase in the number of lives lost. The number lost in 1861 was 884, in 1860, 536; but whilst the casualties in 1861 outnumber those reported in any other year, the lives lost, although exceeding the number lost in 1860, are much below the numbers lost in 1854 and 1859. The comparatively small number of lives lost during 1860 and 1861 is owing chiefly to the absence of the loss of any large passenger ships on the coasts; whilst the increase in the number lost in 1861 over the number lost in 1860 is attributable to the effects of the gales of January, February, and November. In these gales 465 lives were lost.

On reference to Table 4 it will be seen that the number of casualties to ships of the collier class (*i.e.* ships carrying coals, coke, ores, and stone, &c. in bulk) greatly exceeds the number for the last year. This is probably owing to the prevalence of gales from the N. and E. to S.E. The numbers are:—

Ships.	1860.	1861.
Colliers, laden - - -	479	631
„ light - - -	60	136
Iron and Copper Ore - -	93	113
Stone, &c. - - -	83	65
Timber - - -	76	72
Other laden Vessels - - -	338	332
Other Vessels in ballast, not Colliers -	224	109
Passengers - - -	26	36
Total - -	1,379	1,494

The total number of casualties in the two years is 2,873, out of which number 1,660, or about $\frac{7}{12}$ of the whole, happened to ships of the collier class.

Tables 8 and 9 show the whole of the casualties attended with loss of life on the coasts in 1861. In one case they are arranged chronologically, and in the other geographically. In the Tables 8 and 9 for 1860, some omissions were made in consequence of several casualties in the neighbourhood of Wick not having been reported. In noticing these omissions, it should, however, be mentioned that the case of Wick is altogether exceptional. The number of small vessels frequenting the district is large, but owing to the absence of coast guard, and to the small staff of officers at the Receiver's disposal, great difficulty frequently existed in getting reports. The return published last year has been submitted to the Fishery Board and the Board of Fisheries, and the information required to complete the returns has been obtained. The

Fishery Officers will, in future, co-operate with the Receiver of Wreck in procuring and reporting information. The return for 1860 has been corrected, and the result is shown in Table 9 in page 26 of the present return. The result of Table 10, as corrected by the additional returns from Wick, and the result of the wreck experience of the year 1861, does not in any way militate against the observations printed with last year's Report, viz., "that the most serious wrecks, resulting in the greatest loss of life, do not "happen, as was supposed, on the North-east coast, but in those seas and channels "mostly frequented by large foreign going ships." The following are the corrected figures for the last 12 years.

Districts.	Total No. of Lives Lost during Twelve Years.	Annual Average.
Farn Islands to Flamborough Head	670	$55\frac{10}{12}$
Flamborough Head to the North Foreland	1,068	89
North Foreland to St. Catherine's Point	514	$42\frac{10}{12}$
St. Catherine's Point to Start Point	82	$6\frac{10}{12}$
Start Point to the Land's End	460	$38\frac{4}{12}$
Land's End to Hartland Point, including Scilly	353	$29\frac{5}{12}$
Hartland Point to St. David's Head	473	$39\frac{5}{12}$
St. David's Head and Carnsore Point to Lambay Island and Skerries, Anglesea	969	$80\frac{9}{12}$
Skerries and Lambay to Fair Head and Mull of Cantire	1,597	$133\frac{1}{12}$
Cape Wrath to Buchan Ness	257	$21\frac{5}{12}$
Buchan Ness to Farn Islands	280	$23\frac{4}{12}$
All other parts of the Coast	922	$76\frac{10}{12}$
Totals	7,645	$637\frac{1}{12}$

Force of wind.

From Table 12, showing the force of the wind, it appears that nearly half of the casualties have happened with the wind at and under "force 8" or "fresh gale," or under circumstances in which a ship, if seaworthy and properly manned and found, ought to be able to keep the sea.

Life boats.

Table 27 contains a list of the life boats stationed on the coasts of the United Kingdom. It appears from the Table that the number at the end of 1861 was 179, against 173 in 1860. The number of life boats under the management of the Institution as compared with others for the year is as follows:—

	1859.	1860.	1861.
Number of Boats under the management of the National Life Boat Institution	92	110	120
Number of Boats under other management	66	63	59

Out of the whole number in existence at the end of the year 1861, 106 are under the management of the National Life Boat Institution, and are subsidized by the Board of Trade, whilst five are subsidized by the Board of Trade direct, without the intervention of the Institution. Of those remaining, which are not so subsidized, 14 are maintained by the Institution, and 54 by local bodies.

Mortar and rocket apparatus.

The mortar and rocket apparatus is maintained in a very effective state; there has been an increase of 2 in the number of stations during the past year; many of the existing stations have been removed, and the apparatus has in many cases been renewed and remodelled.

Life belts.

During the past year the Board of Trade and the Admiralty have supplied the crews of some of the Coast Guard Stations with Captain Ward's life belts and life lines. This will enable the Coast Guard to put to sea for the purpose of saving life with less risk

themselves. A list of the stations already supplied will be found in Table 29. Half the expense of supplying these belts is borne by the Admiralty, and the other half is paid by the Board of Trade out of the Mercantile Marine Fund.

The expense of providing and maintaining the life boats and apparatus for saving life will be seen by reference to Table 30.

The sum paid to the Royal National Life Boat Institution, during 1861, was 2,877*l.* 3*s.* 2*d.* The payments by the Board of Trade direct, for rewards and gratuities and for services at wrecks, amount to 1,292*l.* 1*s.* 6*d.* The expenses of maintaining the mortar and rocket apparatus is 2,246*l.* 6*s.* 4*d.*; being a total payment of 6,415*l.* 11*s.* 0*d.*, for saving and endeavouring to save life during the year 1861.

The good effected by the mortar and rocket apparatus and life boats, as means for saving life, will be seen by a reference to the following Table, showing the number of lives saved during the last seven years.

Years.	No. of Life Boats.	No. of Mortar and Rocket Apparatus.	No. of Ward's Life Belts and Lines.	No. of Lives saved on the Coast by assistance from the shore.
1855	127	—	—	1,098
1856	124	—	—	1,836
1857	141	198	—	1,161
1858	149	216	—	1,161
1859	158	216	—	1,566
1860	173	233	—	1,383
1861	179	235	206	1,516
Total to 1861	-	-	-	9,721

The number of lives saved during 1861 on or near the coasts of the United Kingdom of which reports have been received was 4,624 against 3,697 in 1860. The number saved, with more or less risk, by assistance from the shore, during 1861, was 1,516, or nearly one-third of the whole number saved. The life boats saved 743 lives, being greatly in excess of the number saved by life boats during the two previous years. And the mortar and rocket apparatus saved 447 lives. The remainder (viz. 326) were saved by fishing boats, smacks, &c. at sea, and by individual exertions of a meritorious character.

Owing to the increase in the number of life boats, and rocket and mortar apparatus stations, it has been found difficult to show them clearly in the small charts usually published with the wreck returns. This year the chart has been printed on a larger scale, and for the sake of convenience has been divided into three sections, one containing Ireland, one Scotland, and one England and Wales.

Board of Trade,
12*th April* 1862.

PART I.

Abstract of Returns of Wrecks and Casualties reported to have occurred on and near the Coasts of the United Kingdom.

Table 1. Wrecks and Casualties for Seven Years; giving the NUMBER and TONNAGE of the Vessels, and the Number of HANDS employed.

Months in which Casualties happened.	Number of Wrecks and Casualties in							Tons Burthen of Ships to which Wrecks and Casualties happened in							Hands employed in Ships to which Wrecks and Casualties happened in						
	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1855.	1856.	1857.	1858.	1859.	1860.	1861.
January -	—	149	281	124	115	206	137	—	35,516	51,146	23,462	22,615	36,674	30,966	—	1,442	2,231	1,012	1,036	1,541	1,196
February -	—	154	64	116	139	137	355	—	36,270	15,628	24,821	27,424	21,967	57,384	—	1,456	700	973	1,223	1,030	2,548
March -	—	96	166	148	136	71	95	—	17,128	34,267	28,187	17,653	13,118	18,501	—	773	1,434	1,067	1,010	562	759
April - -	—	74	76	115	126	70	50	—	14,081	18,609	21,245	19,658	13,808	10,408	—	564	787	931	900	567	408
May - -	—	57	33	48	32	187	36	—	12,095	5,460	8,083	6,594	24,034	5,933	—	498	249	383	275	1,159	270
June - -	—	32	34	30	27	74	35	—	4,464	4,480	5,150	5,516	11,173	4,631	—	207	229	194	260	503	231
July - -	—	48	33	61	34	30	48	—	8,463	5,149	8,612	4,363	3,351	10,170	—	395	255	428	227	209	388
August -	—	51	75	33	52	74	73	—	10,419	17,459	5,829	7,829	8,850	12,152	—	529	734	262	383	445	502
September -	—	98	66	91	86	84	97	—	14,371	11,131	13,419	11,894	13,492	16,233	—	680	522	620	533	635	740
October -	—	99	135	148	343	156	90	—	17,320	22,410	18,105	47,201	21,352	15,108	—	845	1,073	909	2,242	992	626
November -	—	129	94	120	170	164	350	—	25,467	15,158	21,393	28,920	25,843	49,092	—	1,100	790	1,006	1,362	1,226	2,295
December -	—	166	86	136	156	126	128	—	34,342	17,673	26,937	23,259	21,338	22,660	—	1,555	815	1,194	1,087	947	1,077
Total -	1,141	1,153	1,143	1,170	1,416	1,379	1,494	176,544	229,936	218,570	205,243	222,926	215,000	253,238	—	10,044	9,819	8,979	10,538	9,816	11,040

Table 2. Wrecks and Casualties, distinguishing BRITISH from FOREIGN Ships, SAILING SHIPS from STEAMERS, and COASTERS from OVERSEA.

Months in which Casualties happened.	British Ships.										Foreign Ships.					Casualties to Ships whose Country and Employment are unknown.	Totals.
	Sailing Ships registered in the United Kingdom.			Passing United Kingdom, but bound from and to Ports out of the United Kingdom.	Steamers registered in the United Kingdom.		Total Casualties to Ships registered in the United Kingdom.	Sailing Ships registered in the Colonies.		Total Casualties to Ships registered in Colonies.	Total Casualties to British Ships.	Sailing Ships.			Steam Ships.	Total Casualties to Foreign Ships.		
	Coasting Colliers.	Other Coasters.	Oversea.		Coasters.	Oversea.		Employed in Coasting Trade, United Kingdom.	Oversea.			In the Coasting Trade.	Bound to or from British Ports, but not in British Coasting Trade.	Passing United Kingdom, but bound from and to Ports out of the United Kingdom.				
January	40	27	34	–	3	5	109	3	7	10	119	2	12	4	–	18	–	137
February	170	70	58	–	5	1	304	6	6	12	316	2	34	3	–	39	–	355
March	21	26	23	1	2	1	74	–	–	–	74	1	19	–	–	20	1	95
April	13	11	10	2	2	–	38	–	–	–	38	1	8	3	–	12	–	50
May	7	16	6	–	1	–	30	1	–	1	31	–	5	–	–	5	–	36
June	11	7	8	–	1	–	27	–	–	–	27	–	7	–	1	8	–	35
July	17	8	13	–	–	–	38	–	–	–	38	–	6	3	–	9	1	48
August	14	22	18	–	1	–	55	1	1	2	57	–	13	3	–	16	–	73
September	12	33	24	1	2	1	73	2	3	5	78	1	13	5	–	19	–	97
October	18	32	24	–	1	1	76	1	–	1	77	1	9	3	–	13	–	90
November	132	95	65	–	4	4	300	8	3	11	311	–	37	–	2	39	–	350
December	32	38	24	–	4	3	101	1	3	4	105	1	18	4	–	23	–	128
Total in 1861	487	385	307	4	26	16	1,225	23	23	46	1,271	9	181	28	3	221	2	1,494
Total in 1857	132	474	249	–	18	17	890	8	25	33	923	4	157	50	2	213	7	1,143
Total in 1858	121	514	245	–	37	10	7	3	27	30	957	16	156	35	2	209	4	1,170
Total in 1859	261	615	267	–	30	14	1,187	10	24	34	1,221	10	138	40	–	188	7	1,416
Total in 1860	247	619	256	4	25	12	1,163	3	20	23	1,186	8	144	33	1	186	7	1,379

Table 3. Wrecks and Casualties, distinguishing British from Foreign Ships, Sailing Ships from Steamers, and Coasters from Oversea, with the Numbers of VOYAGES made by all Ships of each Class, and the PER-CENTAGE of LOSSES as compared with the Voyages.

—	British Ships.																				
	Sailing Ships registered in the United Kingdom.															Passing United Kingdom, but bound from and to Ports out of the United Kingdom.	Steamers registered in the United Kingdom.				
	Coasting Colliers.	Other Coasters.	Coasting Colliers.	Other Coasters.	Coasting Colliers.	Other Coasters.	Coasting Colliers.	Other Coasters.	Coasting Colliers.	Other Coasters.	Oversea.						Coasters.				
	1857.		1858.		1859.		1860.		1861.		1857.	1858.	1859.	1860.	1861.		1857.	1858.	1859.	1860.	1861.
Total Casualties in each Class -	132	474	121	514	261	615	247	619	487	385	249	245	267	256	307	4	18	37	30	25	26
	606		635		876		866		872												
No. of Voyages in each Class -	131,099		120,105		123,801		125,391		123,661		43,255	41,355	41,200	40,651	46,361	—	27,088	28,768	29,506	29,554	30,465
Rate per cent. of Casualties compared with Voyages in each Class	·46 or 1 in 216		·53 or 1 in 189		·72 or 1 in 139		·69 or 1 in 145		·7 or 1 in 142		·58 or 1 in 173	·59 or 1 in 168	·65 or 1 in 154	·63 or 1 in 159	·66 or 1 in 151	—	·07 or 1 in 1504	·13 or 1 in 777	·11 or 1 in 984	·08 or 1 in 1182	·08 or 1 in 1172

(*Continued.*)

—	British Ships.																				
	Steamers registered in the United Kingdom.					Total Ships registered in the United Kingdom.					Sailing Ships registered in the Colonies.										
	Oversea.										Employed in the Coasting Trade of the United Kingdom.					Oversea.					
	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.
Total Casualties in each Class (*cont.*)	17	10	14	12	16	890	927	1,187	1,163	1,225	8	3	10	3	22	25	27	24	20	24
No. of Voyages in each Class (*cont.*)	10,940	10,581	11,085	12,007	12,890	212,382	200,809	205,592	207,603	213,377	Included in the Voyages made by British ships in the Coasting Trade.					803	1,063	1,060	1,423	1,857
Rate per cent. of Casualties compared with Voyages in each Class (*cont.*)	·16 or 1 in 644	·095 or 1 in 1058	·13 or 1 in 792	·099 or 1 in 1000	·12 or 1 in 805	·42 or 1 in 239	·46 or 1 in 216	·58 or 1 in 173	·56 or 1 in 179	·57 or 1 in 174						3·11 or 1 in 32	2·54 or 1 in 39	2·26 or 1 in 44	1·4 or 1 in 71	1·29 or 1 in 77

(*Continued.*)

—	British Ships.									
	Total Ships registered in the Colonies.					Total British Ships.				
	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.
Total Casualties in each Class (*continued*) -	33	30	34	23	46	923	957	1,221	1,186	1,271
No. of Voyages in each Class (*continued*) -	—	—	—	—	—	213,185	201,872	206,652	209,026	215,234
Rate per cent. of Casualties compared with Voyages in each Class (*continued*) -	—	—	—	—	—	·44 or 1 in 229	·47 or 1 in 210	·59 or 1 in 168	·57 or 1 in 176	·59 or 1 in 169

[*Table 3 continued over.*]

Table 3.—(*continued.*) Wrecks and Casualties, distinguishing British from Foreign Ships, Sailing Ships from Steamers, and Coasters from Oversea, with the addition of the Numbers of VOYAGES made by all Ships of each Class, and the PER-CENTAGE of LOSSES as compared with the Voyages.

	Foreign Ships.														
	Sailing Ships.														
	In the Coasting Trade.					Bound to or from British Ports, but not in the British Coasting Trade.					Passing the United Kingdom, but bound from and to Ports out of the United Kingdom.				
	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.
Total Casualties in each Class (*continued*) -	4	16	10	8	9	157	156	138	144	181	50*	35*	40*	33*	28*
No. of Voyages in each Class (*continued*) -	320	321	426	651	464	41,967	43,102	44,127	48,238	49,640	—	—	—	—	—
Rate per cent. of Casualties compared with Voyages in each Class (*continued*) -	·31 or 1 in 80	5· or 1 in 20	2·3 or 1 in 43	1·2 or 1 in 81	1·9 or 1 in 52	·37 or 1 in 267	·36 or 1 in 276	·32 or 1 in 319	·3 or 1 in 335	·36 or 1 in 274	—	—	—	—	—

(*Continued.*)

	Foreign Ships.										Ships whose Country and Employment are unknown.				
	Steam Ships.					Total Foreign Ships.									
	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.	1857.	1858.	1859.	1860.	1861.
Total Casualties in each Class (*continued*) -	2	2	Nil.	1	3	213	209	188	186	221	7	4	7	7	2
No. of Voyages in each Class (*continued*) -	2,210	2,290	2,160	2,276	2,432	44,818	45,713	46,713	51,165	52,536	—	—	—	—	—
Rate per cent. of Casualties compared with Voyages in each Class (*continued*) - -	·09 or 1 in 1105	·087 or 1 in 1145	Nil.	·04 or 1 in 2276	·12 or 1 in 810	·36 or 1 in 275	·38 or 1 in 262	·32 or 1 in 316	·3 or 1 in 334	·42 or 1 in 238	—	—	—	—	—

(*Continued.*)

	Totals.				
	1857.	1858.	1859.	1860.	1861.
Total Casualties in each Class (*continued*) -	1,143	1,170	1,416	1,379	1,494
No. of Voyages in each Class (*continued*) -	258,003	247,585	253,365	260,191	267,770
Rate per cent. of Casualties compared with Voyages in each Class (*continued*) - -	·42 or 1 in 236	·46 or 1 in 218	·54 or 1 in 184	·51 or 1 in 194	·56 or 1 in 179

* This number is omitted in calculating the per-centages in this Table ; but in Table 24, which is given for purposes of comparison, it is included, as the returns for former years include similar numbers. This accounts for the difference between the per-centages in the Foreign Ships and Total Ships in Table 24, and the same per-centages in Table 3.

Table 4. Wrecks and Casualties, distinguishing the CARGOES of the Ships.

Months in which Casualties happened.	Ballast, not Colliers.	Coals.	Colliers in Ballast.	Cotton.	Fishing Smacks.	Fish or Oil.	Grain, Oatmeal, Flour, and Provisions.	General Cargo.	Metallic Ores.	Manure, Kelp, or Oil-cake.	Passengers and General Cargo.	Potatoes or Fruit.	Salt.	Sugar, Coffee, Spices, Tea, and Molasses.	Stone, Slate, Lime, or Bricks, and Clay.	Timber or Bark.	Wine or Spirits.	Various or unknown.	TOTAL.
January - -	12	58	6	2	2	3	12	14	6	1	6	1	1	4	4	–	—	5	137
February - -	11	203	31	–	2	1	14	8	29	3	10	7	4	1	8	11	1	11	355
March - - -	9	41	5	2	2	2	9	4	7	2	1	5	1	1	3	1	–	–	95
April - - -	3	16	5	1	–	1	2	4	6	1	3	1	1	–	4	1	–	1	50
May - - -	3	8	4	2	–	–	2	3	2	3	1	1	3	–	3	–	–	1	36
June - - -	1	16	1	–	1	1	2	1	6	–	2	–	1	–	3	–	–	–	35
July - - -	3	27	2	–	1	–	–	1	2	1	–	–	4	–	2	3	1	1	48
August - - -	8	29	1	–	2	2	1	3	7	–	–	–	3	3	5	5	1	3	73
September - -	12	25	3	–	6	4	8	5	11	1	4	–	–	1	5	10	1	1	97
October - -	6	34	2	–	3	1	6	8	7	3	–	1	3	–	8	7	–	1	90
November - -	19	127	72	–	9	1	29	9	22	6	5	3	3	–	15	26	–	4	350
December - -	22	47	4	–	4	–	5	9	8	2	4	–	4	3	5	8	1	2	128
TOTAL in 1861	109	631	136	7	32	16	90	69	113	23	36	19	28	13	65	72	5	30	1,494
Total in 1855 -	90	229	81	4	16	–	85	125	44	22	17	11	22	–	40	45	–	310	1,141
Total in 1856 -	108	314	79	12	10	19	115	139	83	26	11	15	40	19	46	86	–	31	1,153
Total in 1857 -	138	382	62	8	15	20	90	85	88	15	21	16	38	10	50	73	6	26	1,143
Total in 1858 -	151	377	41	7	12	18	101	110	101	18	14	12	27	7	75	63	–	36	1,170
Total in 1859 -	148	506	71	4	26	19	102	112	130	21	42	21	26	5	82	61	7	33	1,416
Total in 1860 -	224	479	60	4	37	18	83	84	93	30	26	11	27	6	83	76	2	36	1,379

Table 5. Wrecks and Casualties for Four Years, distinguishing the AGE of the Ships.

AGE.	1858.	1859.	1860.	1861.	TOTAL.
Under 3 Years - - -	151	131	95	82	459
3 and not exceeding 7 Years -	106	183	183	243	715
8 „ 10 „ - -	95	80	101	119	395
11 „ 14 „ - -	84	135	151	151	521
15 „ 20 „ - -	193	213	238	217	861
21 „ 30 „ - -	104	209	219	260	792
31 „ 40 „ - -	53	107	99	105	364
41 „ 50 „ - -	34	65	55	59	213
51 „ 60 „ - -	21	31	27	38	117
61 „ 70 „ - -	7	21	7	17	52
71 „ 80 „ - -	6	7	6	9	28
81 „ 90 „ - -	1	3	3	1	8
91 „ 100 „ - -	1	1	1	1	4
101 and upwards - - -	—	1	1	1	3
Unknown - - - - -	314	229	193	191	927
TOTALS - - -	1,170	1,416	1,379	1,494	5,459

Table 6. Wrecks and Casualties, distinguishing the DESCRIPTION and TONNAGE of the Ships.

Description of Ships.	1856.	1857.	1858.	1859.	1860.	1861.	Description of Ships.	1856.	1857.	1858.	1859.	1860.	1
							Brought forward -	566	569	551	609	645	
Steam Ships - -	34	39	48	34	38	40	Ketches - -	9	5	6	20	13	
Barques - -	139	129	102	123	110	149	Keels - -	—	2	1	1	1	
Billy Boys - -	—	—	4	4	13	—	Luggers - -	11	11	26	12	25	
Brigs - -	299	311	280	292	352	399	Polaccas - -	1	—	—	4	7	
Brigantines - -	66	51	85	98	99	134	Ships - - -	92	58	55	50	49	
Chasse Marée -	3	1	—	4	—	—	Schooners - -	342	354	374	491	421	
Cobles - - -	2	1	2	1	1	—	Sloops - - -	76	68	89	127	114	
Cutters - -	3	8	2	17	8	15	Smacks - -	47	65	55	90	70	
Dandies - - -	—	3	7	10	5	6	Snows - -	4	8	4	8	11	
Flats - -	—	4	5	4	2	8	Trows - - -	1	—	—	1	1	
Galliots - - -	18	21	15	22	16	18	Yachts - -	3	1	4	2	4	
Hermaphrodites -	2	—	—	—	—	2	Yawls - - -	—	—	4	—	15	
Hookers - -	—	1	1	—	1	2	Unknown - -	1	2	1	1	3	
Carried over -	566	569	551	609	645	773	TOTAL -	1,153	1,143	1,170	1,416	1,379	1,

	1855.	1856.	1857.	1858.	1859.	1860.	1861.
Vessels not exceeding 50 Tons -	—	145	172	199	306	284	228
51 and not exceeding 100 „ -	541	338	321	352	455	393	434
101 „ 300 „ -	496	472	473	467	493	557	639
301 „ 600 „ -	67	137	114	96	105	105	135
601 „ 900 „ -	27	34	43	28	33	25	31
901 „ 1,200 „ -	4	15	7	23	17	9	18
1,200 Tons and upwards - -	6	12	13	5	5	6	5
Unknown - - - - -	—	—	—	—	2	—	4
TOTAL - -	1,141	1,153	1,143	1,170	1,416	1,379	1,494

Table 7. Wrecks and Casualties, from 1856 to 1861 inclusive, distinguishing the PARTS OF THE COASTS on which they happened.

Months in which Casualties happened.	East Coast; Dungeness to Pentland Frith (inclusive).						South Coast; Land's End to Dungeness (exclusive).						West Coast; Land's End to Greenock (inclusive).						Irish Coast.						Scilly Islands.					
	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.
January	41	182	47	56	119	74	19	8	7	9	9	20	47	72	37	29	41	23	34	11	14	8	27	17	2	2	1	1	1	1
February	57	35	44	66	87	168	13	9	14	15	6	33	46	14	37	42	30	46	20	5	17	11	9	82	1	–	1	1	1	6
March	41	63	82	52	35	40	5	9	9	15	7	17	31	45	39	42	17	24	11	28	12	15	8	7	3	1	–	–	–	1
April	43	34	40	62	31	22	6	6	8	9	10	9	11	28	23	32	20	11	10	6	39	11	5	5	3	–	1	–	–	–
May	25	13	23	18	148	18	12	1	3	4	9	3	14	13	17	5	22	10	3	2	3	2	5	1	–	1	–	–	–	–
June	8	8	15	13	24	14	6	5	1	5	29	3	13	16	7	5	11	8	3	4	5	1	6	6	–	1	1	–	–	–
July	14	10	27	12	14	22	9	4	5	7	3	9	22	13	14	11	8	11	3	1	5	2	3	4	–	–	–	–	1	–
August	21	37	22	22	31	30	13	5	3	4	9	11	12	22	6	14	23	20	4	4	1	7	6	7	1	1	1	–	1	–
September	37	35	31	33	49	39	5	4	7	14	14	15	35	12	25	28	12	25	18	9	13	5	6	14	–	1	2	–	–	–
October	52	76	69	136	87	36	8	21	9	24	5	10	20	22	41	167	35	26	14	10	17	6	8	13	1	1	2	–	1	–
November	91	60	60	74	110	262	9	6	13	16	13	16	16	13	21	55	28	43	7	7	20	13	6	16	–	–	5	1	6	1
December	76	47	54	77	77	53	14	6	10	14	12	18	40	16	37	36	24	38	28	13	22	18	9	13	1	–	–	–	–	–
Total	506	600	514	621	812	778	119	84	89	136	126	164	307	286	304	466	271	285	155	100	168	99	98	185	12	8	14	3	11	9

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(*Continued.*)

Months in which Casualties happened.	Lundy Island.						Isle of Man.						Northern Islands; Orkney, Shetland, Hebrides, Islay, Campbelton, and North Coast of Scotland.						Total.					
	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.	1856.	1857.	1858.	1859.	1860.	1861.
January	–	1	1	–	1	1	1	2	1	3	2	1	3	3	16	9	6	–	149	281	124	115	206	137
February	3	–	1	1	1	4	1	–	1	1	–	10	15	1	1	2	3	6	154	64	116	139	137	355
March	2	2	2	1	1	–	–	8	–	5	–	–	3	10	4	6	3	6	96	166	148	136	71	95
April	1	1	2	2	–	–	–	–	1	2	–	1	–	1	1	8	4	2	74	76	115	126	70	50
May	–	–	–	–	–	1	–	–	–	–	1	–	3	3	2	3	2	3	57	33	48	32	187	36
June	1	–	–	–	3	1	–	–	–	–	–	–	1	–	1	3	1	3	32	34	30	27	74	35
July	–	2	4	–	–	–	–	–	1	1	1	–	–	3	5	1	–	2	48	33	61	34	30	48
August	–	2	–	–	–	1	–	–	–	2	–	2	–	4	–	3	4	2	51	75	33	52	74	73
September	–	2	3	–	1	–	–	1	1	2	–	2	3	2	9	4	2	2	98	66	91	86	84	97
October	2	1	1	1	–	–	–	1	–	5	–	2	2	3	9	4	20	3	99	135	148	343	156	90
November	1	–	–	2	–	2	–	1	–	2	–	4	5	7	1	7	1	6	129	94	120	170	164	350
December	1	–	1	1	–	–	3	2	1	5	1	4	3	2	11	5	3	2	166	86	136	156	126	128
Total	11	11	15	8	7	10	5	15	6	28	5	26	38	39	60	55	49	37	1,153	1,143	1,170	1,416	1,379	1,494

Table 8. Wrecks and Casualties occasioning **LOSS OF LIFE**, Chronologically arranged, from the 1st day of January to the 31st day of December 1861, inclusive, distinguishing the Description of each Vessel, Cargo, the Age of each Vessel, the Number of Lives Lost in each case, the Date and Place of each Casualty, and the Force and Direction of the Wind at the time each Casualty happened.

Date of Casualty.	Name of Ship and Age when known.	Rig.	Tons.	Men	Cargo.	Nature of Casualty, and whether resulting in Total Loss or Partial Damage.	No. of Lives Lost.	Direction and Force of Wind.		Place.
								Direction	Force	
1861:										
1 Jan.	Mary Caroline, 14 years.	Schooner	400	10	Coals	Stranded; total	10	Unkn.	8	Hale Sand Bank.
1 „	Lovely Nelly, 57 years.	Snow	184	7	Coals	Stranded; total	1	E.	9	Whitby Sands, Northumberland.
1 „	Employ	Brig	246	9	Coals	Leaky; partial	1	E.S.E.	10	Off Hartlepool.
1 „	Cinna	Schooner	53	4	Coals	Stranded; partial	4	E.S.E	11	N. of Beadnell.
1 „	Anna, 5 years	Brig	188	9	Coals	Leaky; partial	1	E.S.E.	11	Near the Fern Islands.
1 „	Miss Nightingale, 6 years.	Schooner	101	7	Oranges	Foundered; total	7	Unkn.	10	Great Yarmouth.
1 „	Dulce Nombre de Jesus, 9 years.	Brig	166	13	Sugar	Stranded; total	5	N.W.	10	Rockham Bay, Morthoe, Devon.
1 „	Vulture, 4 years	S. S.	345	15	Wheat	Damage to Hull, &c.; partial.	1	Unkn.	9	12 miles W. of the Eddystone.
1 „	Orianna, 72 years	Schooner	103	6	Coals	Foundered; total	6	Unkn.	9	1½ mile N. of Whitby.
1 „	Guttenburgh	Ship	1,000	20	General	Stranded; total	26	E.	9	Goodwin Sand.
1 „	Kingston, 4 years	S. S.	300	16	General, 2 passengers	Stranded; total	16 Crew, 2 Pas.,	Unkn.	9	Hasboro' Sands.
1 „	Maria 1st	Brig	Suppd 150	Suppd 6	Unknown	Foundered; total	6	Unkn.	Unk.	Between Lands End and St. Ives.
1 „	New Pelton, 6 years	S. S.	356	14	Coals	Foundered; total	14	Unkn.	Unk.	In the English Channel.
2 „	Ellen, 10 years	Trow	32	4	General	Capsized; partial	4	N.E.	6	2 miles above Kingroad.
9 „	Adventure	Brig	126	5	Vitriol	Stranded; total	1	S. by E.	9	Barn Scar, S. of St. Bees Head.
14 „	Zephyr, 21 years	Brig	237	8	Coals	Stranded; total	2	E.S.E.	8	Middle Sand, Essex.
15 „	Ann Paterson, 11 years.	Brig	190	9	Coals	Damage; partial	1	S.E.	8	Inner Dowsing Sand.
15 „	Caroline, 8 years	Schooner	101	6	Copper Ore	Collision; total	5	S.E.	5	Off Trevose Head, Padstow.
15 „	Charles Henry, 38 years.	Brig	202	8	Coals	Abandoned; total	2	E.S.E.	11	20 miles S.E. of the Humber.
15 „	Theodore, 23 years	Brig	185	8	Coals and Bricks.	Stranded; total	7	E.N.E.	6	Skinningrove.
24 „	Florence Graham	Barque	379	17	Palm Oil	Stranded; total	12	S.W.	9	Inch Island, Dingle Bay.
26 „	Magyar, 7 years	Brig	188	8	Coals	Collision; total	6	W.S.W.	5	Whitby.
27 „	Uredan, 10 years	Brig	280	13	Coals	Stranded; total	1	S.W.	8	Broage Head, Guilleen.
30 „	Victor Emmanuel, 4 years.	Barque	620	19	General	Stranded; total	7	S. by E.	4	Red Streak, Cliff End, Isle of Wight.
4 Feb.	Frederikke, 4 years	Schooner	118	7	Salt	Foundered; total	7	Unkn.	Unk.	Bahanald, Hebrides.
5 „	Manchester	Brigant[e]	133	7	Coals	Stranded; total	7	Unkn.	10	Rock Angus.
8 „	City of St. Andrew's, 5 years.	Schooner	66	3	Railway chairs	Dismasted; partial	2	N.E.	10	Off Point of Ayre Light, Isle of Man.
8 „	Nancy Dawson, 14 years.	Schooner	96	7	General	Damage to hull; partial.	1	N.	11	Lat. 49° N. Long. 6° 30′ W.
9 „	Hero, 17 years	Brig	154	7	Coals	Stranded; total	7	E.N.E.	12	Dublin Bay.
9 „	City of Lucknow, 2 years.	Ship	888	28	General, 5 passengers.	Stranded; partial	1	N.E.	9	Luke's Bay, near Bangor.
9 „	Rising Sun, 2 years	Brig	225	8	Coals	Stranded; total	6	E.	8	Near Seaham.
9 „	Martha	Brigant[e]	60	3	Coals	Stranded; total	3	E.N.E.	10	Long Rock, Ballywalter.
9 „	Allington, 4 years	Sloop	37	3	Unknown	Collision; total	3	N.E.	6	Rundlestone, Mount's Bay.
9 „	Jane and Margaret, 24 years.	Schooner	56	3	Coals	Foundered; total	3	E.N.E.	10	Between Liverpool and Amlwch.
9 „	Lewis Charles	Schooner	91	6	Coals	Collision; total	6 (1 belong to *Bottreaux Castle*)	E.N.E.	10	Lundy Island.
9 „	Barassie	Brig	172	7	Coals	Foundered; total	7	E.N.E.	12	Between Ardrossan and Dublin.
9 „	Gazelle, 10 years	Schooner	51	4	Coals, and 1 passenger.	Foundered; total	5	E.N.E.	12	Between Clogher Head and Mouth of Boyne.
9 „	Neptune	Brig	118	6	Coals	Stranded; total	5	N.E.	10	Kingstown Harbour.

Table 8.—*continued.*

Date of Casualty.	Name of Ship and Age when known.	Rig.	Tons.	Men	Cargo.	Nature of Casualty, and whether resulting in Total Loss or Partial Damage.	No. of Lives Lost.	Direction and Force of Wind.		Place.
								Direction	Force	
1861: Feb.	Lune, 60 years	Schooner	103	5	Coals	Foundered; total	5	Unkn.	Unk.	Between Calf of Man and Dublin Bay.
„	Fama, 30 years	Brigant[e]	65	4	Ballast	Stranded; partial	1	E.N.E.	11	Middleton Beach.
„	Eleanor, 17 years	Brig	268	9	Coals	Stranded; partial	1	E.N.E.	11	Middleton Beach.
„	Wyre	Schooner	71	4	Pig Iron	Loss of sails, &c.; partial.	1	E.N.E.	11	30 miles N. of Orms Head.
„	Maria, 21 years	Brigant[e]	74	4	Coals	Foundered; total	4	E.	10	Hartlepool Bay.
„	Sprite, 18 years	Brig	146	7	Coals	Stranded; total	7	E.	10	Hartlepool Bay.
„	George Andreas	Brig	122	6	Coals	Foundered; total	6	E.	10	Hartlepool Bay.
„	Alliance	Schooner	108	6	Coals	Stranded; total	6	E.	10	Hartlepool Bay.
„	Wansbeck, 21 years	Brig	228	8	Coals	Foundered; total	8	E.	10	Hartlepool Bay.
„	Tribune, 35 years	Schooner	132	6	Coals	Stranded; total	1	E.	10	Whitby Sands.
„	Union, 21 years	Brig	213	8	Coals	Stranded; partial	1	E. & by N.	11	Middleton Beach, Hartlepool.
„	Lady de Crespigny, 3 years.	Brig	178	9	Coals	Stranded; total	9	E.N.E.	10	Redcar Rocks.
„	Geertina Harmina	Galliot	54	4	Coals	Stranded; total	4	E.S.E.	9	Off Whitby.
„	Merchant, 21 years	Schooner	103	5	Coals	Stranded; total — 12 Crew of Whitby Life Boat.		E.N.E.	11	Whitby Beach.
„	Kelso, 6 years	Ship	529	19 & 1 Pilot	Coals	Stranded; total	1	E. by S.	10	Hartlepool Bar.
„	Fowlis, 29 years	Schooner	90	6	Timber	Stranded; total	2	E.	10	South Shields.
„	Venus, 55 years	Schooner	84	5	Ballast	Stranded; total	1	E.	11	West Hartlepool.
„	Mary	Brig	88	5	Coals	Stranded; total	5	N.E.	10	Greystones, Wicklow.
„	Industry	Schooner	56	4	Coals	Stranded; total	3	N.E.	10	Kingstown.
„	Tonquin	Barque	475	13	Iron, &c.; 1 Passenger.	Foundered; total — Crew, 11 Pas., 1		N.E.	10	Near Wicklow Head.
„	Agnes, 30 years	Brig	149	7	Coals	Foundered; total	7	N.E.	10	Between Whitehaven and Dublin.
„	Eliza, 30 years	Brigant[e]	117	4	Coals	Stranded; total	3	N.E.	10	Wicklow Head.
„	Margaret Mortimer, 14 years.	Brigant[e]	113	6	Coals; one passenger.	Stranded; total — Crew, 6 Pas., 1		E.N.E.	10	Resil Strand, Wicklow.
„	Rowland Hill, 20 years.	Schooner	64	4	Coals	Stranded; total	2	E.N.E.	10	Near Wicklow Head.
„	William Campbell, 15 years.	Schooner	99	6	Coals	Stranded; total	5	N.E.	10	Near Wicklow Head.
„	Blanche, 30 years.	Schooner	64	4	Coals	Stranded; total	1	N.E.	11	3 miles off Wicklow.
„	Perseverance, 24 years.	Schooner	97	4	Coals	Stranded; total	3	E N.E.	11	Spit of Baldoyle.
„	Elizabeth, 53 years	Brig	70	5	Coals	Foundered; total	5	E.N.E.	11	East of Skerries, Dublin.
„	Gipsy, 40 years	Smack	20	4	Coals	Stranded; total	1	E.	Unk.	Colt's Island, near Skerries.
„	Mary Ann, 55 years	Brig	91	5	Coals	Stranded; total	5	N.E.	12	Howth Harbour.
„	Tom's Whim	Schooner	59	4	Pig iron	Stranded; total	4	N.E.	10	Near Groomsport.
„	Duke of Wellington, say 60 years.	Brigant[e]	70	4	Coals	Loss of sails; total	1	E.	10	Near Gormanstown Castle, Meath.
„	Queen Adelaide	Smack	39	4	Coals	Stranded; total	4	N.E.	10	Rogerstown Bar, Dublin.
„	Helena, 19 years	Brig	157	7	Coals	Foundered; total	7	E.N.E.	12	Between Whitehaven and Dublin.
„	Catherine, 9 years	Schooner	81	5	Coals	Foundered; total	5	E.N.E.	12	Between Milford and Skibbereen.
„	Wave, 27 years	Schooner	78	5	Ballast	Foundered; total	3	E.N.E.	10	8 miles off Sunderland.
„	Spy	Sloop	61	Say 4	Coals	Foundered; total	Say 4	E.	10	Hartlepool Bay.
„	Apollos	Galliot	93	5	Coals	Stranded; total	5	E.N.E.	10	Redcar Rocks.
„	Hero	Polacca	112	6	Coals	Stranded; total — 7 including 2 men of the *John*.		S.	6	Lizard and Penzance.
„	Daniel, 30 years	Schooner	76	5	Slates	Collision; total	6	Unkn.	Unk.	40 miles from Cape Cornwall.
„	Sir Alan McNab, 17 years.	Brigant[e]	98	4	Coals	Stranded; total	1	E.N.E.	9	Near Arklow.

Table 8.—*continued.*

Date of Casualty.	Name of Ship and Age when known.	Rig.	Tons.	Men	Cargo.	Nature of Casualty, and whether resulting in Total Loss or Partial Damage.	No. of Lives Lost.	Direction and Force of Wind.		Place.
								Direction	Force	
1861: 15 Feb.	Dorothea	Unknown	150	6	Mahogany	Stranded; total	6	S.S.E.	7	Myrass Island, Co. Cork.
16 „	San Spiridion, 13 years.	Brig	226	10	Coals	Stranded; total	6	S.S.W.	10	Tramore Bay.
18 „	Richard	Sloop	30	2	Unknown	Foundered; total	2	S.W.	10	Tentsmuir Ness, Fife.
19 „	Elizabeth and Mary, 5 years.	Sloop	20	3	Culm	Foundered; total	1	S.W. to N.W.	10	Near Strumble Head.
19 „	Susan	Brigant^{e}	118	6	Coals	Stranded; total	4	S.E.	9	Ballymacart Point, Waterford.
19 „	Singleton, 9 years	Brigant^{e}	127	7	Culm	Stranded; total	7	S.W. to N.W.	10	Great Castle Head, Milford.
19 „	Oak	Sloop	33	3	Culm	Foundered; total	3	S.W.	10	Newport Bay, Pembroke.
20 „	Harmony, 16 years	Brigant^{e}	99	7	Coals	Stranded; total	4	S.S.W.	10	Freshwater West Bay.
20 „	Richard, 20 years	Brigant^{e}	147	8	Coals	Stranded; partial	1	N.W.	9	Tankerness, Orkneys.
20 „	Pantilamon, 13 years.	Brig	400	11	Coals	Stranded; total	8	S.W.	9	Polzeath Bay, Cornwall.
20 „	Augustine	Brig	270	6	Wheat	Stranded; total	3	S.S.E. to S.W.	10	Batten Point, Plymouth.
21 „	General Wyndham, 4 years.	Brigant^{e}	97	6	Ballast	Foundered; total	6	Unkn.	Unk.	Between Poole and Hartlepool.
21 „	Mary Ann, 2 years	Schooner	75	4	Coals	Foundered; total	4	Unkn.	10	North Sea (within limits).
21 „	Ailsa, 8 years	Barque	565	16	Coals	Stranded; total	2	S.W.	9	St. Bride's Bay.
22 „	Gaeta	Barque	400	14	Coals	Foundered; total	8	W.	8	North Pier, Whitehaven.
25 „	Unicorn	Barque	293	12	Ballast; 3 Passengers.	Derelict; partial	Sup^{d} 15	Unkn.	Unk.	6 miles off Scratby.
3 March	Aglae, 11 years	Schooner	59	4	Coals	Damage to hull, &c.; partial.	1	W.S.W.	9	Yarmouth Roads.
3 „	Raumo, 1 year	Ship	808	20	Steam Coals	Explosion; total	4	N.N.W.	5	50 miles W. of Lundy Island.
6 „	Danube, 7 years	Ship	987	26	Cotton	Stranded; total	1	W.	9	Cardigan Bay.
9 „	Ariosto, 7 years	Brig	278	10	Ballast	Stranded; total	5	S.S.W.	5 to 12	Milltown-Malbay.
11 „	Palendar	Sloop	32	3	Oats	Stranded; total	2	N.W.	9	Bardsey Sound.
13 „	Unknown	Brig	180	Sup^{d} 9	Ballast	Derelict; total	Sup^{d} 9	Unkn.	Unk.	Between Palling and Winterton.
16 „	Astrea, 4 years	Barque	304	12	Wheat	Stranded; total	9	W.	2	Lands End.
16 „	Juniata	Ship	834	25	Salt, Iron, &c.; 1 Passenger.	Collision; total	13	W.S.W.	6	Near Tuskar Light.
16 „	Jeune Marie	Lugger	Say 80	6	Coals	Collision; total	2	W. by S.	5	15 miles off Portland.
17 „	Balclutha	Brig	212	13	General	Loss of sails; partial	1	W.	9	Lat. 57° 45′ N. Long. 9° 40′ W.
17 „	Margaret	Hooker	18	3	Bricks	Stranded; total	3	W.S.W.	11	Inch Bay, Cork.
17 „	Marika	Unkn.	273	Sup^{d} 14	Ballast	Stranded; total	Sup^{d} 14	Unkn.	Unk.	Oronsay, Isle of Colonsay.
25 „	Aghios Demetrius, 4 years.	Brig	222	9	Wheat	Stranded; partial	1	Unkn.	5	Near the Bishops.
27 „	Hortensia, 15 years	Schooner	130	5	Ballast	Stranded; total	1	S.E.	2	Boulmer, North Steel.
29 „	Ocean Spray, 1 year.	Schooner	70	5	Coals	Foundered; total	5	Unkn.	Unk.	Mull of Galloway.
1 April	Ocean Bride, 21 years.	Brig	143	7	Coals	Stranded; total	6	E.S.E.	8	Mouth of the Tay.
27 „	Prince Albert, 15 years.	S. Tug	9	4	Ballast	Stranded; total	1	N. by W.	1	S. Pier, Sunderland.
— „	Magdalen, new	Barque	484	Sup^{d} 14	Deals	Capsized; partial	Sup^{d} 14	Unkn.	Unk.	Unknown.
25 May	Jane Dalrymple	Schooner	99	3	Coals	Stranded; total	3	S.W.	7	Robin Rigg Sand Bank, Cumberland.
11 June	Alice	Whale Boat.	4	5	Ballast	Capsized; total	5	S.S.W.	6	Near Mizen Head, Cork.
15 „	Swallow	Brig	233	8	Coals	Collision; total	1	E.N.E.	Unk.	Off Flamborough Head.
25 „	Gem, 19 years	Smack	38	4	Iron Ore	Foundered; total	3	S.	8	Mouth of the Usk.
6 July	Iola Willie, 5 years	Barque	384	9	Ballast	Collision; total	1	S.	5	Near Dungeness.
10 „	Nymph, 13 years	Brigant^{e}	85	3	Ballast	Stranded; partial	2	N.W.	9	Near Loch Inchard.
23 „	Eagle, 29 years	Sloop	39	3	Coals	Foundered; total	2	S.	9	Off the Spurn.
28 „	Mary Ann Duffus, 6 years.	Barque	318	12	Coals	Collision; total	9	Variable	4	West of Nashpoint.
29 „	Broughton Hall, 5 years.	Ship	1,493	34	Salt	Dismasted; partial	1	S.	8	Between Cork and Kinsale.
29 „	London, 49 years	Barque	504	16	Timber	Distress; partial	4	S.	8	Near Carlingford Lough.

Table 8.—*continued.*

Date of Casualty.	Name of Ship and Age when known.	Rig.	Tons.	Men.	Cargo.	Nature of Casualty, and whether resulting in Total Loss or Partial Damage.	No. of Lives Lost.	Direction and Force of Wind.		Place.
								Direction	Force	
1861:										
30 July -	Margaret, 63 years	Sloop	37	3	Coals -	Foundered; total -	3	W. by S.	9	Near North Mull of Galloway.
14 Aug. -	Coriolanus, 15 years	Ship	1,108	28	Ballast -	Stranded; total -	28	S.S.E.	9	Cannon Rock, near Cloghy.
17 „ -	Iante Meyer, 6 years.	Brigant[e]	192	8	Salt - -	Loss of sails; partial	1	N.W.	7	Near Isle of Man.
— „ -	Dart, 40 years -	Smack	39	3	Baliast; 1 Passenger.	Foundered; total	Pas., 1 Crew, 3	Unkn.	Unk.	Between Aiderney and Plymouth.
24 „ -	Industry, 45 years	Schooner	47	2	Unknown -	Foundered; total -	2	Unkn.	Unk.	Chequers Buoy.
31 „ -	Mary Ann, 33 years	Sloop	41	9	Linseed -	Foundered; total -	1	N.	2	S.W. of Folkestone.
2 Sept. -	Villiers, 44 years -	Brigant[e]	142	8	Coals -	Stranded; total -	2	S.W.	9	Mixon Shoal.
4 „ -	Rachabite - -	Smack	19	2	Culm -	Foundered; total -	2	S.W.	6	Ramsey Sound, Pembroke.
13 „ -	Rambler - -	Schooner	55	4	Bricks and cement.	Stranded; total -	2	W. by S.	9	Rock Lt. House, North Arran.
14 „ -	Alma, 5 years -	Smack	42	3	Wheat -	Collision; total -	2	S.W.	6	Holyhead Roadstead.
15 „ -	Fanny, 45 years -	Schooner	64	4	Coals -	Foundered; total -	3	N.W.	9	Near the Flat Holmes.
16 „ -	Colonist, 1 year -	S. Ship	236	18	General; 7 Passengers.	Foundered; total -	13	N.	10	Lat. 53° 3′ N, Long. 2° 24′ E.
18 „ -	Frisk, 40 years -	Cutter	17	2	Iron - -	Foundered; total -	2	Unkn.	Unk.	Coast of Wales (supp[d]).
27 „ -	Caradoc, 10 years	Brig	237	10	Coal, Iron, &c.	Damaged; partial	1	S.S.W.	10	Off Wicklow.
— „ -	Honor, 1 year -	Smack	43	3	Grain -	Foundered; total -	3	Unkn.	Unk	Between Liverpool and Rouen.
28 „ -	Corsair, 29 years -	Schooner	175	8	Barley; 1 Passenger.	Collision; total -	9	Unkn.	Unk.	Near Dunnose, Isle of Wight
28 „ -	Rose - -	Schooner	51	3	Railway Sleepers.	Foundered; total -	3	S.W.	10	Whaligoe, near Wick.
28 „ -	Arnold - -	Schooner	100	6	Ballast -	Stranded; total -	6	S.W.	10	Proudfoot, near Wick.
— „ -	Ann and Susan, 23 years.	Smack	44	3	Coals -	Foundered; total -	3	Unkn.	Unk.	Between Birkenhead and Dublin.
10 Oct. -	Eclat, 32 years -	Cutter	18	2	Ballast -	Foundered; total -	2	S.S.E.	8	Near Dungarvon Lighthouse.
10 „ -	Moray and Caithness Packet, 58 years.	Smack	22	3	Coals -	Foundered; total -	3	S.E.	8	Between Troon and Glenarn.
16 „ -	Owen Cambridge, 24 years.	Schooner	72	5	Cement -	Collision; total -	5	N.E.	5	Off the Smalls.
1 Nov. -	East London, 22 years.	Barque	363	12	Timber -	Distress; partial -	1	N.E.	10	Between Butt of Lewis and Cape Wrath.
1 „ -	William, 23 years	Schooner	60	4	Coals -	Stranded; total -	2	N.N.E.	11	Lossiemouth Harbour.
1 „ -	Boz, 20 years -	Schooner	46	4	Bones -	Foundered; total -	4	Unkn.	Unk.	Between Seaham and Sunderland.
1 „ -	Perth, 45 years -	Schooner	116	6	Coals -	Foundered; total -	6	N.E.	Unk.	Unknown; between Newcastle and Aberdeen.
2 „ -	Sisters - -	Brigant[e]	102	5	Grain and Flour.	Loss of sails; partial	1	W.	10	Robin Hood's Bay.
2 „ -	Copeland, 25 years	Schooner	140	6	Stones -	Stranded; total	Life Boat Crew, 2 other Persons, 3	N.N.E.	12	Off Scarborough.
2 „ -	Gleaner - -	Brigant[e]	74	4	Coals -	Loss of sails; partial	1	N.	10	Flamboro' Head.
2 „ -	Gipsey - -	Schooner	50	3	Ballast -	Stranded; total -	3	N.	10	Near Withernsea.
2 „ -	Britannia - -	Sloop -	29	2	Coals -	Foundered; total -	2	N.	10	Near Fleetwood.
2 „ -	Yarborough, 5 years	S. Ship	441	22	Salt and Iron	Stranded; total -	3	N.	12	Sand Hale Flats, Lincolnshire.
2 „ -	Missionary, 16 years	Smack	16	3	Fish - -	Stranded; partial -	1	N.N.W.	10	OuterBrancasterHarbour.
2 „ -	Darius, 1 year -	Barque	329	11	Coals -	Stranded; total -	5	W.N.W.	10	Long Sand.
2 „ -	Viscountess Canning, 16 years.	Brig -	164	8	Bones -	Stranded; total -	1	N.N.E.	10	Off Blakeney Harbour.
2 „ -	Harbinger, 50 years	Smack	51	3	Coals -	Foundered; total -	3	N.N.W.	11	Off Bridlington Quay.
2 „ -	Undaunted - -	Schooner	36	3	Coals -	Stranded; total -	3	N.N.W.	12	Off Heacham, Norfolk.
2 „ -	Ann and Mary, 19 years.	Schooner	61	3	Ironstone -	Foundered; total -	3	Variable	Unk.	Between Skinningrove and Newcastle.
2 „ -	Polly, 67 years -	Schooner	64	4	Coals -	Foundered; total -	4	Unkn.	Unk.	Off North Foreland.
2 „ -	Tryall, 20 years -	Schooner	65	5	Coals -	Foundered; total -	5	W.N.W.	10	Unknown; supposed off Coast of Yorkshire.
2 „ -	Emma Sneaton -	Schooner	96	6	Coals -	Foundered; total -	6	Unkn.	Unk.	Unknown; supposed between the Tyne and Whitby.

Table 8.—*continued.*

Date of Casualty.	Name of Ship and Age when known.	Rig.	Tons.	Men	Cargo.	Nature of Casualty, and whether resulting in Total Loss or Partial Damage.	No. of Lives Lost.	Direction and Force of Wind.		Place.
								Direction	Force	
1861: 2 Nov.	Ocean	Schooner	67	4	Salt	Stranded; total	4	Unkn.	Unk.	3 miles S. of Holmpton.
4 „	George and Henry	Smack	19	2 & Pilot	Stone	Stranded; total	1 Pilot.	W.S.W.	8	E. of Shoreham Harbour.
5	Commodore, 39 years	Schooner	81	5	Stone	Foundered; total	5	S.W.	8	Near Dungeness.
5 „	Esmeralda, 3 weeks	Cutter	45	5	Furniture; eleven passengers.	Collision; total	1	S.W.	5	In the Humber.
5 „	Sunbeam	Brig	247	9	Coals	Collision; total	5	W.	5	Off Flamboro' Head.
10 „	Diva Marchina, 14 years.	Schooner	94	5	Wheat	Damaged; partial	3	S.E.	10	North Sea.
11 „	Prompt, 8 years	Barque	767	19 & Pilot	Rice	Foundered; total	15	W. by S.	9	Near the Bell Buoy.
11 „	Collina, 7 years	Schooner	58	4	Coals	Collision; partial	1	W.	10	Menai Straits.
12 „	Euxine, 6 years	Brig	268	9	Beans	Stranded; total	9	W.	9	Salthouse Bank, Lytham.
14 „	Enchantress, 4 years	S. Ship	170	13	General; and three passengers.	Foundered; total	Crew. 13 Pas. 3	E.	9	North Sea.
14 „	Diadem, 28 years	Sloop	40	3	Coals	Stranded; partial	1	N.	8	Near Tetney High Sand.
14 „	Anna Catherina, 12 years.	Galliot	103	5	Ballast	Stranded; total	1	N.E.	10	Trow Rocks.
14 „	Phœnix, 38 years	Brig	146	7	Coals	Stranded; total	1	N.E.	10	River Tyne.
14 „	Speed, 15 years	Schooner	78	4	Wheat	Foundered; total	4	N.E.	9	Hartlepool Bay.
14 „	Reuben, 29 years	Ketch	63	3	Apples	Loss of sails, &c.; partial.	1	N.E.	9	Near Hartlepool, Aberfraw Bank.
14 „	Agnes, 22 years	Schooner	90	5	Pig Iron	Foundered; total	5	N.E.	9	Off Whitby.
15 „	South Esk	Barque	240	8	Coals	Stranded; total	1	N.W.	7	Grimston Garth, Yorkshire.
15 „	Sunshine	Brig	172	8	Ballast	Founded; total	8	W.N.W.	9	60 miles E.S.E. of Lowestoft.
20 „	Durus, 8 years	Brig	229	8	Beans	Stranded; total	1	W.S.W.	11	Anglesea.
22 „	Strathbogie, 18 years	Schooner	45	5	Coals	Abandoned; total	1	W.	9	25 miles from St. Abb's Head.
25 „	Eliza	Brigant^{e}	85	5	Coals and Gunpowder.	Stranded; total	3	S.S.W.	10	Near Douglas Head.
26 „	Eclipse, 39 years	Schooner	59	5	Bar Iron	Stranded; total	5	S.S.W.	9	Off Pagham, Sussex.
27 „	Comptesse de Fregeville.	S. Ship	240	16	Ballast	Collision; total	10	W.N.W.	5	Off Puffin Island, Anglesea.
29 „	Sea Queen, new	Schooner	82	5	Railway Iron	Stranded; total	3	S.S.W.	9	12 miles S. of Holyhead.
30 „	Flora	Fishing Boat	Under 10	3	Ballast	Collision; partial	1	S.W.	6	Off Sandhole, Argyleshire.
30 „	William Edward, 8 years.	Schooner	185	8	Tobacco and Hides.	Collision; total	1	W. by N.	6	Near Hastings.
7 Dec.	Eagle, 16 years	Brig	128	6	Coals	Stranded; total	2	N.E.	10	Aberdeen Harbour.
10 „	General Striker, 3 years.	Barque	399	12	Saltpetre and Hides.	Stranded; total	4	S. by E.	11	Tacumshane, Kilmore.
10 „	Maria, 11 years	Schooner	64	5	Kelp	Stranded; total	1	S.E.	10	Doaghbeg Bay, Donegal.
11 „	Winnifred, 19 years	Barque	501	18	Coals	Disabled; partial	3	S.W.	10	Near St. Kilda, Hebrides.
12 „	Isabella, 22 years	Schooner	110	6	Sand	Stranded; total	6	Unkn.	Unk.	Skerries Rocks, Anglesea.
14 „	Gipsy, 28 years	Cutter	27	3	Ballast	Damaged; partial	1	W.N.W.	6	Shambles Light Ship, Portland.
18 „	Fishing Boat (not named), new.	Lugger	20	7	Fish	Foundered; total	5	N.E.	8	E. of Burnmouth.
20 „	Henry, 36 years	Schooner	92	6	Coals	Foundered; total	2	E.N.E.	4	Shivering Sands.
23 „	Sparkling Foam	Schooner	188	8 & Pilot	General	Stranded; total	2	Unkn.	5	Margate Sands.
31 „	Grape Shot, 2 years	Brigant^{e}	119	7	Fish; four passengers.	Collision; partial	1	S.E. by S.	6	W.N.W. of the Lizard.

Summary of Table 8.

—	Total Losses.				Partial Damage.				Vessels with Cargo.				Vessels in Ballast.			
	1858.	1859.	1860.	1861.	1858.	1859.	1860.	1861.	1858.	1859.	1860.	1861.	1858.	1859.	1860.	1861.
Collisions - -	13	12	18	17	9	6	4	3	16	17	21	16	6	1	1	3
Strandings - -	46	83	47	84	4	10	11	10	42	80	47	83	6	10	10	11
Founderings - -	13	40	30	57	–	1	1	–	12	33	22	49	1	3	6	5
Other Causes - -	2	4	10	6	11	17	14	23	9	21	19	25	4	–	5	4
	74	139	105	164	24	34	30	36	79	151	109	173	17	14	22	23

—	Whether with Cargo or in Ballast, Unknown.				Total Ships.				Hands on Board.				Lives Lost.			
	1858.	1859.	1860.	1861.	1858.	1859.	1860.	1861.	1858.	1859.	1860.	1861.	1858.	1859.	1860.	1861.
Collisions - -	–	–	–	1	22	18	22	20	269	216	136	156	84	59	72	89
Strandings - -	2	3	1	–	50	93	58	94	364	1,691	463	739	158	1,337	241	420
Founderings -	–	5	3	3	13	41	31	57	72	252	156	319	47	216	140	292
Other Causes - -	–	–	–	–	13	21	24	29	166	664	165	272	51	33	83	83
	2	8	4	4	98	173	135	200	871	2,823	920	1,486	340	1,645	536	884

Table 9. Wrecks and Casualties (exclusive of Collisions) occasioning **LOSS OF LIFE** (geographically arranged) from the 1st day of January to the 31st day of December 1861, inclusive; distinguishing the Description of each Vessel, Cargo, the Age of each Vessel, the Number of Lives Lost in each Case, the Date and Place of each Casualty, and the Force and Direction of the Wind at the Time each Casualty happened.

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives Lost.	Wind		Place.
								Direction.	Force.	
					Farn Islands to Flamborough Head					
1 January	Lovely Nelly, 57 years.	Snow	184	7	Coals -	Stranded; total -	1	E.	9	Whitley Sands, Northumberland.
1 January	Employ - -	Brig	246	9	Coals -	Leaky; partial -	1	E.S.E.	10	Off Hartlepool.
1 January	Cinna - - -	Schooner	53	4	Coals -	Stranded; partial -	4	E.S.E.	11	North of Beadnell.
1 January	Anna, 5 years -	Brig	188	9	Coals -	Leaky; partial -	1	E.S.E.	11	Near the Fern Islands.
1 January	Orianna, 72 years -	Schooner	103	6	Coals -	Foundered; total -	6	Unknown	9	1½ mile N. of Whitby.
15 January	Theodore, 23 years	Brig	185	8	Coals, and Bricks.	Stranded; total -	7	E.N.E.	6	Skinningrove,
9 February	Rising Sun, 2 years	Brig	225	8	Coals -	Stranded; total -	6	E.	8	Near Seaham.
9 February	Fama, 30 years -	Brig[e]	65	4	Ballast -	Stranded; partial -	1	E.N.E.	11	Middleton Beach.
9 February	Eleanor, 17 years -	Brig	268	9	Coals -	Stranded; partial -	1	E.N.E.	11	Middleton Beach.
9 February	Maria, 21 years -	Brig[e]	74	4	Coals -	Foundered; total -	4	E.	10	Hartlepool Bay.
9 February	Sprite, 18 years -	Brig	146	7	Coals -	Stranded; total -	7	E.	10	Hartlepool Bay.
9 February	George Andreas -	Brig	122	6	Coals -	Foundered; total -	6	E.	10	Hartlepool Bay.
9 February	Alliance - -	Schooner	108	6	Coals -	Stranded; total -	6	E.	10	Hartlepool Bay.
9 February	Wansbeck, 21 years	Brig	228	8	Coals -	Foundered; total -	8	E.	10	Hartlepool Bay.
9 February	Tribune, 35 years -	Schooner	132	6	Coals -	Stranded; total -	1	E.	10	Whitby Sands.
9 February	Union, 21 years -	Brig	213	8	Coals - -	Stranded; partial -	1	E. & by N.	11	Middleton Beach, Hartlepool.
9 February	Lady de Crespigny, 3 years	Brig	178	9	Coals -	Stranded; total -	9	E.N.E.	10	Redcar Rocks.
9 February	Geertina Harmina	Galliot	54	4	Coals -	Stranded; total -	4	E.S.E.	9	Off Whitby.
9 February	Merchant, 21 years	Schooner	103	5	Coals -	Stranded; total -	12 crew of Whitby Life Boat.	E.N.E.	11	Whitby Beach
9 February	Kelso, 6 years -	Ship	529	19, 1 pilot.	Coals -	Stranded; total -	1	E. by S.	10	Hartlepool Bar.
9 February	Fowlis, 29 years -	Schooner	90	6	Timber -	Stranded; total -	2	E.	10	South Shields.
9 February	Venus, 55 years -	Schooner	84	5	Ballast -	Stranded; total -	1	E.	11	West Hartlepool.
9 February	Wave, 27 years -	Schooner	78	5	Ballast -	Foundered; total -	3	E.N.E.	10	8 miles off Sunderland.
9 February	Spy - -	Sloop	61	say 4	Coals -	Foundered; total -	4	E.	10	Hartlepool Bay.
10 February	Apollos - -	Galliot	93	5	Coals -	Stranded; total -	5	E.N.E.	10	Redcar Rocks.
27 March -	Hortensia, 15 years	Schooner	130	5	Ballast -	Stranded; total -	1	S.E.	2	Boulmer North Steel.
27 April -	Prince Albert, 15 years.	S. Tug	9	4	Ballast -	Stranded; total -	1	N. by W.	1	South Pier, Sunderland.
1 Nov. -	Boz, 20 years -	Schooner	46	4	Bones -	Foundered; total -	4	Unknown	Unk.	Between Seaham and Sunderland.
1 Nov. -	Perth, 45 years -	Schooner	116	6	Coals -	Foundered; total -	6	N.E.	Unk.	Between Newcastle and Aberdeen.
2 Nov. -	Sisters - -	Brig[e]	102	5	Grain and Flour.	Loss of sails; partial.	1	W.	10	Robin Hood's Bay.
2 Nov. -	Copeland, 25 years	Schooner	140	6	Stones -	Stranded; total -	2 Life Boat crew. 3 other Pers.	N.N.E.	12	Off Scarborough.
2 Nov. -	Gleaner - -	Brig[e]	74	4	Coals -	Loss of sails, &c.; partial.	1	N.	10	Flamborough Head.
2 Nov. -	Ann and Mary, 19 years.	Schooner	61	3	Ironstone -	Foundered; total -	3	Variable	Unk.	Between Skinningrove and Newcastle.
2 Nov. -	Tryall, 20 years -	Schooner	65	5	Coals -	Foundered; total -	5	W.N.W.	10	Supposed off Coast of Yorkshire.
2 Nov. -	Emma Sneaton -	Schooner	96	6	Coals -	Foundered; total -	6	Unknown	Unk.	Supposed between Tyne and Whitby.
14 Nov. -	Anna Catherina, 12 years.	Galliot	103	5	Ballast -	Stranded; total -	1	N.E.	10	Trow Rocks.
14 Nov. -	Phœnix, 38 years -	Brig	146	7	Coals -	Stranded; total -	1	N.E.	10	River Tyne.
14 Nov. -	Speed, 15 years -	Schooner	78	4	Wheat -	Foundered; total -	4	N.E.	9	Hartlepool Bay.
14 Nov. -	Reuben, 29 years -	Ketch	63	3	Apples -	Loss of sails, &c.; partial.	1	N.E.	9	Near Hartlepool.
14 Nov. -	Agnes, 22 years -	Schooner	90	5	Pig Iron -	Foundered; total -	5	N.E.	9	Off Whitby.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
TOTAL -	40	5129	244	34	6	–	31	9	147

Wrecks and Casualties (exclusive of Collisions) occasioning Loss of Life geographically arranged, from the 1st January to the 31st December 1861, inclusive—*continued.*

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives lost.	Wind.		Place.
								Direction.	Force.	
						Flamborough Head to the North Foreland.				
1 January	Mary Caroline, 14 years.	Schooner	400	10	Coals -	Stranded; total -	10	Unknown	8	Hale Sand Bank.
1 January	Miss Nightingale, 6 years.	Schooner	101	7	Oranges -	Foundered; total -	7	Unknown	10	Great Yarmouth.
1 January	Kingston, 4 years -	S. S.	300	16	General; 2 Passengers.	Stranded; total -	16 crew 2 pas.	Unknown	9	Hasboro' Sands.
4 January	Zephyr, 21 years -	Brig.	237	8	Coals -	Stranded; total -	2	E.S.E.	8	Middle Sand, Essex.
5 January	Ann Paterson, 11 years.	Brig.	190	9	Coals -	Damage; partial -	1	S.E.	8	Inner Dowsing Sand.
5 January	Charles Henry, 38 years.	Brig	202	8	Coals -	Abandoned; total-	2	E.S.E.	11	20 miles S.E. of the Humber.
5 February	Unicorn - -	Barque	293	12	Ballast; 3 Passengers.	Derelict; partial -	15 suppd	Unknown		6 miles off Scratby.
3 March -	Aglae, 11 years -	Schooner	59	4 suppd	Coals -	Damage to Hull; partial.	1	W.S.W.	9	Yarmouth Roads.
3 March -	Unknown - -	Brig	180	9	Ballast -	Derelict; total -	9	Unknown		Between Palling and Winterton.
3 July -	Eagle, 29 years -	Sloop	39	3	Coals -	Foundered; total -	2	S.	9	Off the Spurn.
4 Aug. -	Industry, 45 years -	Schooner	47	2	Unknown -	Foundered; total -	2	Unknown		Chequers Buoy.
6 Sept. -	Colonist, 1 year -	S. S.	236	18	General; & 7 Passengers.	Foundered; total -	13	N.	10	Lat. 53° 3′ N., Long. 2° 24′ E.
2 Nov. -	Gipsey - -	Schooner	50	3	Ballast -	Stranded; total -	3	N.	10	Near Withernsea.
2 Nov. -	Yarborough, 5 years	S. S.	441	22	Salt and Iron	Stranded; total -	3	N.	12	Sand Hale Flats, Lincolnshire.
2 Nov. -	Missionary, 16 years	Smack	16	3	Fish -	Stranded; partial -	1	N.N.W.	10	Outer Brancaster Harbour.
2 Nov. -	Darius, 1 year -	Barque	329	11	Coals -	Stranded; total -	5	W.N.W.	10	Long Sand.
2 Nov. -	Viscountess Canning, 16 years.	Brig	164	8	Bones -	Stranded; total -	1	N.N.E.	10	Off Blakeney Harbour.
2 Nov. -	Harbinger, 50 years	Schooner	51	3	Coals -	Foundered; total -	3	N.N.W.	11	Off Bridlington Quay.
2 Nov. -	Undaunted -	Schooner	36	3	Coals -	Stranded; total -	3	N.N.W.	12	Off Heacham, Norfolk.
2 Nov. -	Ocean - -	Schooner	67	4	Salt -	Stranded; total -	4	Unknown		3 miles S. of Holmpton.
4 Nov. -	Diadem, 28 years -	Sloop	40	3	Coals -	Stranded; partial -	1	N.	8	Near Tetney High Sand.
5 Nov. -	South Esk -	Barque	240	8	Coals -	Stranded; partial -	1	N.W.	7	Grimston Garth, Yorkshire.
20 Dec. -	Henry, 36 years -	Schooner	92	6	Coals -	Foundered; total -	2	E.N.E.	4	Shivering Sands.
23 Dec. -	Sparkling Foam -	Schooner	188	8 1Pilot	General -	Stranded; total -	2	Unk.	5	Margate Sands.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	24	3,998	189	20	3	1	18	6	111

								North Foreland to St. Catherine's Point.		
1 January	Guttenburgh -	Ship	1,000	20	General -	Stranded; total -	26	E.	9	Goodwin Sands.
30 January	Victor Emanuel, 4 years.	Barque	620	19	General -	Stranded; total -	7	S. by E.	4	Red Streak, Cliff End, Isle of Wight.
31 August -	Mary Ann, 33 yrs.	Sloop	41	3	Linseed -	Foundered; total -	1	N.	2	S.W. of Folkestone.
2 Nov. -	Polly, 67 years -	Schooner	64	4	Coals -	Foundered; total -	4	Unknown		Off North Foreland.
4 Nov. -	George and Henry	Smack	19	2 1Pilot	Stone -	Stranded; total -	1 pilot.	W.S.W.	8	E. of Shoreham Harbour.
5 Nov. -	Commodore, 39 yrs.	Schooner	81	5	Stone -	Foundered; total -	5	S.W.	8	Near Dungeness.
26 Nov. -	Eclipse, 39 years -	Schooner	59	5	Bar Iron -	Stranded; total -	5	S.S.W.	9	Off Pagham, Sussex.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	7	1,884	59	7	—	—	7	—	49

Wrecks and Casualties (exclusive of Collisions) occasioning Loss of Life geographically arranged, from the 1st January to the 31st December 1861, inclusive—*continued.*

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives lost.	Wind. Direction.	Wind. Force.	Place.
St. Catherine's Point to Start Point.										
14 Dec. -	Gipsey, 28 years -	Cutter	27	3	Ballast -	Damaged; partial -	1	W.N.W.	6	Shambles Light Ship, Portland.

		Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	1	27	3	–	1	–	—	1	1

Start Point to the Land's End.										
1 January	Vulture, 4 years -	S. S.	345	15	Wheat -	Damage to Hull, &c.; partial.	1	Unknown	9	12 miles W. of the Eddystone.
10 February	Hero - -	Polacca	112	6	Coals -	Stranded; total -	7 including 2 men of the 'John.'	S.	6	Lizard and Penzance.
20 February	Augustine -	Brig	270	6	Wheat -	Stranded; total -	3	S.S.E. to S.W.	10	Batten Point, Plymouth.
17 August -	Dart, 40 years -	Smack	39	3	Ballast; 1 Passenger.	Foundered; total	Crew 3, Pas. 1	Unknown		Between Alderney and Plymouth.

		Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	4	766	30	3	1	–	3	1	15

Land's End to Hartland Point, including Scilly.										
1 January	Maria 1st - -	Brig	150 Suppd	6 Suppd	Unknown	Foundered; total -	6	Unknown		Between Land's End and St. Ives.
20 February	Pantilamon, 13 yrs.	Brig	400	11	Coals -	Stranded; total -	8	S.W.	9	Polzeath Bay, Cornwall.
16 March -	Astrea, 4 years -	Barque	304	12	Wheat -	Stranded; total -	9	W.	2	Land's End.

		Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	3	854	29	2	–	1	3	–	23

Hartland Point to St. David's Head.										
1 January	Dulce Nombre de Jesus, 9 years.	Brig	166	13	Sugar -	Stranded; total -	5	N.W.	10	Rockham Bay, Morthoe, Devon.
2 January	Ellen, 10 years -	Trow	32	4	General -	Capsized; partial -	4	N.E.	6	2 miles above Kingroad.
19 February	Singleton, 9 years -	Brige	127	7	Culm -	Stranded; total -	7	S.W. to N.W.	10	Great Castle Head, Milford.
20 February	Harmony, 16 years	Brige	99	7	Coals -	Stranded; total -	4	S.S.W.	10	Freshwater West Bay.
21 February	Ailsa, 8 years -	Barque	565	16	Coals -	Stranded; total -	2	S.W.	9	St. Bride's Bay.
25 March -	Aghios Demetrius, 4 years.	Brige	222	9	Wheat -	Stranded; partial -	1	Unknown	5	Near the Bishops.
25 June -	Gem, 19 years -	Smack	38	4	Iron Ore -	Foundered; total -	3	S.	8	Mouth of the Usk.
2 Sept. -	Villiers, 44 years -	Brige	142	8	Coals -	Stranded; total -	2	S.W.	9	Mixon Shoal.
4 Sept. -	Rachabite -	Smack	19	2	Culm -	Foundered; total -	2	S.W.	6	Ramsey Sound, Pembroke.
15 Sept. -	Fanny, 45 years -	Schooner	64	4	Coal -	Foundered; total -	3	N.W.	9	Near the Flat Holmes.

		Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	10	1,474	74	10	–	–	8	2	33

ecks and Casualties (exclusive of Collisions) occasioning Loss of Life geographically arranged, from the 1st January to the 31st December 1861, inclusive—*continued.*

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives Lost.	Wind. Direction.	Wind. Force.	Place.
						St. David's Head and Carnsore Point to Lambay Island and Skerries, Anglesea.				
February	Hero, 17 years	Brig	154	7	Coals	Stranded; total	7	E.N.E.	12	Dublin Bay.
February	Neptune	Brig	118	6	Coals	Stranded; total	5	N.E.	10	Kingstown Harbour.
February	Mary	Brig	88	5	Coals	Stranded; total	5	N.E.	10	Greystones, Wicklow.
February	Tonquin	Barque	475	13	Iron, &c., 1 Passenger.	Foundered; total	11 (Crew 1 Pas.)	N.E.	10	Near Wicklow Head.
February	Eliza, 30 years	Brig[e]	117	4	Coals	Stranded; total	3	N.E.	10	Wicklow Head.
February	Margaret Mortimer 14 years.	Brig[e]	113	6	Coals, 1 passenger.	Stranded; total	6 / 1 Pas.	E.N.E	10	Resil Strand, Wicklow.
February	Rowland Hill, 20 years.	Schooner	64	4	Coals	Stranded; total	2	E.N.E.	10	Near Wicklow Head.
February	William Campbell, 15 years.	Schooner	99	6	Coals	Stranded; total	5	N.E.	10	Near Wicklow Head.
February	Blanche, 30 years	Schooner	64	4	Coals	Stranded; total	1	N.E.	11	3 miles off Wicklow.
February	Perseverance, 24 years.	Schooner	97	4	Coals	Stranded; total	3	E.N.E.	11	Spit of Baldoyle.
February	Mary Ann, 55 yrs.	Brig	91	5	Coals	Stranded; total	5	N.E.	12	Howth Harbour.
February	Queen Adelaide	Smack	39	4	Coals	Stranded; total	4	N.E.	10	Rogerstown Bar, Dublin.
February	Industry	Schooner	56	4	Coals	Stranded; total	3	N.E.	10	Kingstown.
February	Sir Alan McNab, 17 years.	Brig[e]	98	4	Coals	Stranded; total	1	E.N.E.	9	Near Arklow
February	Elizabeth and Mary, 5 years.	Sloop	20	3	Culm	Foundered; total	1	S.W. to N.W.	10	Near Strumble Head.
February	Oak	Sloop	33	3	Culm	Foundered; total	3	S.W.	10	Newport Bay, Pembroke.
March	Danube, 7 years	Ship	987	26	Cotton	Stranded; total	1	W.	9	Cardigan Bay.
March	Palendar	Sloop	32	3	Oats	Stranded; total	2	N.W.	9	Bardsey Sound.
Sept.	Frisk, 40 years	Cutter	17	2	Iron	Foundered; total	2	Unknown		Coast of Wales (suppd).
Sept.	Caradoc, 10 years	Brig	237	10	Coal, Iron, &c.	Damaged; partial	1	S.S.W.	10	Off Wicklow.
Sept.	Ann and Susan, 23 years.	Smack	44	3	Coal	Foundered; total	3	Unknown		Between Birkenhead and Dublin.
Nov.	Durus, 8 years	Brig	229	8	Beans	Stranded; total	1	W.S.W.	11	Aberfraw Bank, Anglesea.
Nov.	Sea Queen, new	Schooner	82	5	Railway Iron	Stranded; total	3	S.S.W.	9	12 miles S. of Holyhead.
Dec.	General Striker, 3 years.	Barque	399	12	Saltpetre and Hides.	Stranded; total	4	S. by E.	11	Tacumshane, Kilmore.
Dec.	Isabella, 22 years	Schooner	110	6	Sand	Stranded; total	6	Unknown		Skerries Rocks, Anglesea.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total	25	3,863	157	25	–	–	24	1	90

						Skerries and Lambay to Fair Head and Mull of Cantire.				
9 January	Adventure	Brig	126	5	Vitriol	Stranded; total	1	S. by E.	9	Barn Scar, S. of St. Bees Head.
5 February	Manchester	Brig[e]	133	7	Coals	Stranded; total	7	Unknown	10	Rock Angus.
8 February	City of St. Andrews, 5 years.	Schooner	66	3	Rail[y] Chairs	Dismasted; partial	2	N.E.	10	Off Point of Ayre Light, Isle of Man.
9 February	City of Lucknow, 2 years	Ship	888	28	General, 5 Passengers.	Stranded; partial	1	N.E.	9	Luke's Bay, near Bangor.
9 February	Martha	Brig[e]	60	3	Coals	Stranded; total	3	E.N.E.	10	Long Rock, Ballywalter.
9 February	Jane and Margaret, 24 years.	Schooner	56	3	Coals	Foundered; total	3	E.N.E.	10	Between Liverpool and Amlwch.
9 February	Barassie	Brig	172	7	Coals	Foundered; total	7	E.N.E.	12	Between Ardrossan and Dublin.
9 February	Gazelle, 10 years	Schooner	51	4	Coals and 1 Passenger.	Foundered; total	5	E.N.E.	12	Between Clogher Head and Mouth of Boyne.
9 February	Lune, 60 years	Schooner	103	5	Coals	Foundered; total	5	Unknown		Between Calf of Man and Dublin Bay.
9 February	Wyre	Schooner	71	4	Pig Iron	Loss of sails, &c.; partial.	1	E.N.E.	11	30 miles N. of Orme's Head.
9 February	Agnes, 30 years	Brig	149	7	Coals	Foundered; total	7	N.E.	10	Between Whitehaven and Dublin.
9 February	Elizabeth, 53 years	Brig	70	5	Coals	Foundered; partial	5	E.N.E.	11	East of Skerries, Dublin.
9 February	Gipsy, 40 years	Smack	20	4	Coals	Stranded; total	1	E.	Unk.	Colt's Island, near Skerries
9 February	Tom's Whim	Schooner	59	4	Pig Iron	Stranded; total	4	N.E.	10	Near Groomsport.
9 February	Duke of Wellington, say 60 years.	Brig[e]	70	4	Coals	Loss of sails, &c.; total.	1	E.	10	Near Gormanstown Castle, Meath.
9 February	Helena, 19 years	Brig	157	7	Coals	Foundered; total	7	E.N.E.	12	Between Whitehaven and Dublin.
22 February	Gaeta	Barque	400	14	Coals	Foundered; total	8	W.	8	North Pier, Whitehaven.

Wrecks and Casualties (exclusive of Collisions) occasioning Loss of Life geographically arranged, from the 1st January to the 31st December 1861, inclusive—*continued.*

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives Lost.	Wind. Direction.	Wind. Force.	Place.
					***Skerries and Lambay to Fair Head and Mull of Cantire*—continued.**					
29 March	Ocean Spray, 1 yr.	Schooner	70	5	Coals	Foundered; total	5	Unknown		Mull of Galloway.
25 May	Jane Dalrymple	Schooner	99	3	Coals	Stranded; total	3	S.W.	7	Robin Rigg Sand Bank, Cumberland.
29 July	Lonn, 49 years	Barque	504	16	Timber	Distress; partial	4	S.	8	Near Carlingford Lough.
30 July	Margaret, 63 years	Sloop	37	3	Coals	Foundered; total	3	W. by S	9	Near North Mull of Galloway.
17 August	Iante Meyer, 6 yrs.	Brig[e]	192	8	Salt	Loss of sails; partial	1	N.W.	7	Near Isle of Man.
14 August	Coriolanus, 15 yrs.	Ship	1,108	28	Ballast	Stranded; total	28	S.S.E.	9	Cannon Rock, near Cloghy.
10 October	Moray and Caithness Packet, 58 years.	Smack	22	3	Coal	Foundered; total	3	S.E.	8	Between Troon and Glenarn.
2 Nov.	Britannia	Sloop	29	2	Coals	Foundered; total	2	N.	10	Near Fleetwood.
11 Nov.	Prompt, 8 years	Barque	767	19 & 1 Pilot.	Rice	Foundered; total	15	W by S.	9	Near the Bell Buoy.
12 Nov.	Euxine, 6 years	Brig	268	9	Beans	Stranded; total	9	W.	9	Salthouse Bank, Lytham.
25 Nov.	Eliza	Brig[e]	85	5	Coals and Gunpowder.	Stranded; total	3	S.S.W.	10	Near Douglas Head.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total	28	5,832	216	27	1	–	22	6	144

Cape Wrath to Buchan-ness.

20 February	Richard, 20 years	Brig[e]	147	8	Coals	Stranded; partial	1	N.W.	9	Tankerness, Orkneys.
28 Sept.	Rose	Schooner	51	3	Railway Sleepers.	Foundered; total	3	S.W.	10	Whaligoe, near Wick.
28 Sept.	Arnold	Schooner	say 100	6	Ballast	Stranded; total	6	S.W.	10	Proudfoot, near Wick.
1 Nov.	Willliam, 23 years	Schooner	60	4	Coals	Stranded; total	2	N.N.E.	11	Lossiemouth Harbour.
7 Dec.	Eagle, 16 years	Brig	128	6	Coals	Stranded; total	2	N.E.	10	Aberbeen Harbour.
18 Dec.	Fishing Boat, (not named), new.	Lugger	20	7	Fish	Foundered; total	5	N.E.	8	East of Burnmouth.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total	6	506	34	5	1	–	5	1	19

Buchan-ness to Farn Island.

18 February	Richard	Sloop	30	2	Unknown	Foundered; total	2	S.W.	10	Tentsmuir Ness, Fife.
1 April	Ocean Bride, 21 years.	Brig	143	7	Coals	Stranded; total	6	E.S.E.	8	Mouth of the Tay.
22 Nov.	Strathbogie, 18 yrs.	Schooner	45	5	Coals	Abandoned; total	1	W.	9	25 miles from St. Abb's Head.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total	3	218	14	2	–	1	3	–	9

All other Parts of the Coast.

24 January	Florence Graham	Bark	379	17	Palm Oil	Stranded; total	12	S.W.	9	Inch Island, Dingle Bay.
27 January	Uredan, 10 years	Brig	280	13	Coals	Stranded; total	1	S.W.	8	Broage Head, Guillen.
4 February	Frederikke, 4 years	Schooner	118	7	Salt	Foundered; total	7	Unknown		Bahanald, Hebrides.
9 February	Catherine, 9 years	Schooner	81	5	Coals	Foundered; total	5	E.N.E.	12	Between Milford and Skibbereen.
15 February	Dorothea	Unknown	150	6	Mahogany	Stranded; total	6	S.S.E.	7	Myrass Island, County Cork.
16 Februar	San Spiridion, 13 years.	Brig	226	10	Coals	Stranded; total	6	S.S.W.	10	Tramore Bay.

Wrecks and Casualties (exclusive of Collisions), occasioning Loss of Life geographically arranged, from the 1st January to the 31st December 1860, inclusive—*continued.*

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives Lost.	Wind. Direction.	Wind. Force.	Place.
All other Parts of the Coast—continued.										
9 February	Susan - -	Brig[e]	118	6	Coals -	Stranded; total -	4	S.E.	9	Ballymacart Point, Waterford.
9 March -	Ariosto, 7 years -	Brig	278	10	Ballast -	Stranded; total -	5	S.S.W.	5 to 12	Miltown, Malbay.
7 March -	Margaret -	Hooker	18	3	Bricks -	Stranded; total -	3	W.S.W.	11	Inch Bay, Cork.
7 March -	Marika - -	Unknown	273	14 supp[d]	Ballast -	Stranded; total -	14 supp[d]	Unknown		Oronsay, Island of Colonsay.
1 June -	Alice - -	W[e] Boat	4	5	Ballast -	Capsized; total -	5	S.S.W.	6	Near Mizen Head, Cork.
0 July -	Nymph, 13 years -	Brig[e]	85	3	Ballast -	Stranded; partial -	2	N.W.	9	Near Loch Inchard.
9 July -	Broughton Hall, 5 years	Ship	1493	34	Salt -	Dismasted; partial	1	S.	8	Between Cork and Kinsale.
3 Sept. -	Rambler -	Schooner	55	4	Bricks and Cement.	Stranded; total -	2	W. by S.	9	Rock Lighthouse, North Arran.
0 October	Eclat, 32 years -	Cutter	18	2	Ballast -	Foundered; total -	2	S.S.E.	8	Near Dungarvan Lighthouse.
1 Nov. -	East London, 22 years.	Barque	363	12	Timber -	Distress; partial -	1	N.E.	10	Between Butt of Lewis and Cape Wrath.
0 Dec. -	Maria, 11 years -	Schooner	64	5	Kelp -	Stranded; total -	1	S.E.	10	Doaghbeg Bay, Donegal.
1 Dec. -	Winnifred, 19 years	Barque	501	18	Coals -	Disabled; partial -	3	S.W.	10	Near St. Kilda, Hebrides.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	18	4,504	174	13	5	–	14	4	80

At Sea.

1 January	New Pelton, 6 yrs.	S. S.	356	14	Coals -	Foundered; total -	14	Unknown		In the English Channel.
8 February	Nancy Dawson, 14 years.	Schooner	96	7	General -	Damage to Hull; partial.	1	N.	11	Lat. 49° N., Long. 6° 30′ W.
21 February	General Wyndham, 4 years	Brig[e]	97	6	Ballast -	Foundered; total -	6	Unknown		Between Poole and Hartlepool.
21 February	Mary Ann, 2 years	Schooner	75	4	Coals -	Foundered; total -	4	Unk.	10	North Sea (within limits).
3 March -	Raumo, 1 year -	Ship	808	20	Steam Coals	Explosion; total -	4	N.N.W.	5	50 miles West of Lundy Island.
17 March -	Balclutha - -	Brig	212	13 supp[d]	General -	Loss of sails; partial	1 supp[d]	W.	9	Lat. 57° 45′ N., Long. 9° 40′ W.
— April -	Magdalen, new -	Bark	484	14	Deals -	Capsized; partial -	14	Unknown		Unknown.
27 Sept. -	Honor, 1 year -	Smack	43	3	Grain -	Foundered; total -	3	Unknown		Between Liverpool and Rouen.
10 Nov. -	Diva Marchina, 14 years.	Schooner	94	5	Wheat -	Damaged; partial	3	S.E.	10	North Sea.
14 Nov. -	Enchantress, 4 yrs.	S. S.	170	13	General Cargo and 3 Passengers.	Foundered; total -	13 crew, 3 Pas.	E.	9	North Sea.
15 Nov. -	Sunshine -	Brig	172	8	Ballast -	Foundered; total -	8	W.N.W.	9	60 miles E.S.E. of Lowestoft.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total -	11	2,607	107	9	2	–	7	4	74

Table 10. STATEMENT of the Number of Lives lost in certain Districts of the Coasts of the United Kingdom (exclusive of those lost through Casualties caused by Collisions), during the Twelve Years ended December 1861.

Districts.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	Total	Annual Average
Farn Islands to Flamborough Head	11	37	143	18	100	17	15	114	31	12	25	147	670	55 10/12
Flamborough Head to the North Foreland	230	43	82	61	119	55	36	117	35	72	107	111	1,068	89
North Foreland to St. Catherine's Point	57	17	73	72	21	21	37	32	2	102	31	49	514	42 10/12
St. Catherine's Point to Start Point	2	—	18	3	5	3	4	9	—	25	12	1	82	6 10/12
Start Point to the Land's End	11	12	135	4	23	194	10	4	15	25	12	15	460	38 4/12
Land's End to Hartland Point, including Scilly	14	11	21	22	42	17	6	19	23	145	10	23	353	29 5/12
Hartland Point to St. David's Head	20	30	20	17	10	32	68	12	23	126	82	33	473	39 5/12
St. David's Head and Carnsore Point to Lambay Island and Skerries, Anglesea	29	37	122	101	16	28	23	19	29	472	3	90	969	80 9/12
Skerries and Lambay to Fair Head and Mull of Cantire	100	54	113	111	360	27	21	39	41	537	50	144	1,597	133 1/12
Cape Wrath to Buchan Ness	24	12	9	21	12	26	6	51	25	8	44	19	257	21 5/12
Buchan Ness to Farn Islands	2	14	44	30	50	4	23	26	20	37	21	9	280	23 4/12
All other parts of the coast	148	10	59	388	81	16	48	4	12	6	70	80	922	76 10/12
Totals	648	277	839	848	839	440	297	446	256	1,567	467	721	7,645	637 1/12

Note to Table 10.—After the publication in last year's Report of the Returns for the neighbourhood of Wick, it was found that several casualties attended with loss of life, had not been reported to the Board of Trade. From returns since received, it appears that the casualties and loss of life in the neighbourhood of Wick during the years 1850 to 1860 inclusive, are as follows :—

Date.	Name of Ship, and Age when known.	Description of Vessel.	Tons.	Men.	Cargo.	Nature of Casualty, and whether Total Loss or Partial Damage.	No. of Lives lost.	Wind. Direction.	Wind. Force.	Place.
Cape Wrath to Noss Head, including the Orkneys and Pentland Firth.										
24 Mar. 1850	Russian Vessel	Brig	—	8	Timber	Stranded; total	3	Unknown		Calf Head, N. Orkneys.
30 Mar. „	Emma	Unknown		10	Unknown	Stranded; total	10	S.	11	South Ronaldshay.
30 Mar. „	Sylphiden	Unknown		4	Unknown	Foundered; total	4	Unknown		South Ronaldshay.
13 July „	Skiff*	—	—	8	Nil	Capsized; partial	3	Unknown		Brough, Dunnet.
25 Aug. „	Ellinor	Schooner	—	4	Unknown	Foundered; total	4	S.W.	11	Loch Erribol.
11 Feb. 1853	Antelope	Brig	250	10	Ballast	Stranded; total	4	N.E.	11	Papa Westray, Orkneys.
4 Sept. 1854	Herring Boat*	Lugger	12	5	Ballast	Foundered; total	5	Unknown		Holborn Head.
29 Sept. „	Robert and Alice	Sloop	—	3	Herrings	Stranded; total	3	N.W.	6	Hoy Sound, Orkneys.
25 Feb. 1855	Emeiheiden	Brig	218	10	Salt & Cotton	Stranded; total	10	N.W.	5	Cape Wrath, 3 miles.
16 Sept. 1856	Ahti, 5 years	Schooner	120	7	General	Stranded; total	6	W.N.W.	10	Dunnet Head.
9 Mar. 1858	Thorwaldsen, 13 yrs.	Barque	299	12	Coals and 2 Passengers.	Stranded; total	8	N.	11	Strathy Bay.
2 May „	Cleveland*	Schooner	51	5	Timber	Stranded; total	5	Unknown		Firout Head, Cape Wrath
10 Sept. „	Herring Boat*	Lugger	12	6	Unknown	Foundered; total	6	Unknown		Off Cape Wrath (supposed)
30 Sept. „	Albacore	Smack	47	9	Ballast	Dismasted; partial	2	W.N.W.	10	Cape Wrath & Whiten Head
9 Mar. 1859	Lord Mulgrave	Barque	417	14	Coal	Stranded; total	5	S.W.	11	Buckness, Orkneys.
20 Sept. „	Boat*	—	—	4	Nil	Capsized; partial	2	Unknown		Dunnet Bay.
17 Mar. 1860	Fishing Boat	Lugger	10	8	Ballast	Capsized; partial	8	Unknown		Near Thurso (supposed.)
4 June „	Boat*	—	—	2	Unknown	Capsized; partial	1	Unknown		Dunnet Bay.
3 Oct. „	W. W. Scott, 1 yr.	Brig	212	10	Timber	Capsized; total	10	Unknown		Westray, Orkneys.
3 Dec. „	Nicolai Daniel, unknown	Brig	150	say 8	Linseed	Stranded; total	8	E.S.E.	Unk.	Trimmer Goe Head, Greenwall, Orkneys.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total	20	1,798	147	9	6	5	15	5	107

Noss Head to Tarbet Ness, including Dornock Firth.										
12 Dec. 1851	Two Fishing Boats	Unknown		8	Unknown	Foundered; total	8	Unknown		Brora.
6 Nov. 1852	Ship's Boat*	—	—	4	Nil	Capsized; partial	1	Unknown		Wick Bay.
19 Feb. 1853	Haddock Boat*	—	—	6	Ballast	Capsized; partial	2	Unknown		Whaligoe.
12 June „	Pilot Boat*	—	—	4	Ballast	Capsized; partial	4	Unknown		Between Noss Head and Wick.
24 Apr. 1855	Haddock Boat*	—	—	13	Nil	Foundered; total	13	Unknown		Near Clyth.
1 June „	Ship's Boat*	—	—	5	Nil	Capsized; partial	3	Unknown		Wick Bay.
31 Jan. 1857	Two Barges*	—	50	8	General	Foundered; total	6	Unknown		Wick Bay.
9 Sept. „	Life Boat*	—	—	15	Nil	Capsized; partial	1	S.E.	Unk.	Wick Bay.
15 Jan. 1858	Haddock Boat*	—	—	2	Ballast	Capsized; partial	2	Unknown		Old Man of Wick.
9 May 1860	Petty, 3 years	Lugger	—	5	Fish	Capsized; total	1	E.N.E.	10	Helmsdale Bar, County Sutherland.

				Cargo.	Ballast.	Unknown.	Total.	Partial.	
Total	10	50	70	2	7	1	4	6	41

Table 10 above contains the figures as corrected.

Table 11. Wrecks and Casualties, distinguishing them according to the DIRECTION of the Wind.

Points of Compass.	January.			February.			March.			April.			May.			June.			July.			August.			September.			October.			November.			December.			Total.		
	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861	1859	1860	1861
N.	1	6	2	2	8	2	4	–	4	4	2	2	4	3	2	–	–	2	1	3	1	–	2	1	3	2	3	13	3	1	8	10	35	2	3	3	42	42	58
N. by E.	–	1	1	–	2	–	2	–	–	1	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	4	2	–	–	6	,6	7
N.N.E.	6	3	–	–	9	1	3	2	–	1	6	2	4	12	3	–	1	1	1	–	–	–	1	–	1	8	3	24	4	1	3	2	28	7	8	3	50	56	42
N.E. by N.	–	1	1	–	1	–	–	–	–	1	–	–	1	–	1	–	–	1	–	1	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	–	2	5	4
N.E.	4	4	3	–	5	44	3	2	–	9	9	6	5	13	6	5	2	3	–	–	1	3	2	–	4	14	–	43	5	4	5	3	25	8	7	2	89	66	94
N.E. by E.	–	–	–	–	1	3	–	–	–	–	1	–	–	1	–	–	–	–	–	1	–	1	–	–	–	1	–	1	–	2	1	–	3	–	–	i	3	6	9
E.N.E.	–	3	4	–	4	81	5	6	–	–	11	6	2	11	2	–	3	5	1	1	–	1	–	1	5	5	–	18	2	4	5	3	8	2	4	2	39	53	113
E. by N.	1	–	1	–	–	19	–	–	–	–	–	1	1	–	1	1	–	–	–	–	1	1	–	–	1	–	–	2	–	1	–	4	1	–	–	1	7	4	26
E.	2	2	9	–	4	62	1	2	–	8	4	6	1	2	3	5	1	4	1	1	–	1	–	–	1	2	1	7	1	4	2	9	4	4	5	8	33	33	101
E. by S.	–	–	2	–	–	6	–	–	–	4	–	2	1	–	–	1	1	–	–	–	–	–	–	–	–	–	–	4	–	1	2	3	–	–	–	1	12	4	12
E.S.E.	–	5	16	1	–	10	3	1	1	19	4	5	2	2	2	2	1	1	–	2	–	–	2	–	–	1	2	21	–	5	3	25	14	2	9	6	53	52	62
S.E. by E.	1	1	1	–	–	–	1	–	–	4	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	1	2	–	3	1	–	14	4	2
S.E.	2	15	13	1	1	12	4	–	1	8	3	5	3	3	1	2	2	2	3	4	3	–	–	–	–	2	1	26	1	11	13	13	22	10	32	7	72	76	78
S.E. by S.	–	2	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	2	–	1	1	1	–	3	4	1	7	8	4
S.S.E.	–	32	10	3	2	6	1	–	–	1	3	–	–	3	–	–	2	–	–	–	1	1	2	–	3	–	1	11	1	11	13	5	2	7	18	5	40	68	36
S. by E.	–	3	3	–	–	3	–	–	–	1	–	–	–	–	–	–	1	–	1	–	1	–	–	–	–	2	1	1	1	1	1	3	2	3	3	1	7	13	12
S.	6	16	5	5	1	7	1	2	1	1	2	–	–	4	–	–	6	2	3	1	6	2	6	2	3	7	9	13	2	8	8	18	7	7	8	8	49	73	55
S. by W.	3	1	–	2	2	1	2	–	–	2	1	–	–	–	–	–	–	–	–	–	2	–	–	–	1	1	1	2	1	–	–	2	2	3	2	2	15	10	8
S.S.W.	11	25	13	17	3	15	10	3	3	9	1	–	–	12	–	1	11	–	–	1	6	2	5	5	9	4	11	9	4	11	7	19	14	17	1	17	92	89	95
S.W by S.	2	4	1	2	1	4	3	–	–	2	–	–	–	2	–	–	1	–	–	–	2	2	–	1	1	–	2	3	1	1	3	1	8	4	–	2	22	10	21
S.W.	23	19	14	27	6	36	28	8	11	14	1	1	3	6	2	–	17	2	10	4	7	5	10	20	9	6	19	9	23	6	17	8	34	21	3	19	166	111	171
S.W. by W.	2	1	3	–	–	1	3	–	5	3	–	–	–	–	–	–	–	–	–	–	–	2	1	1	–	1	–	–	1	2	–	–	4	2	–	–	12	4	17
W.S.W.	17	12	8	19	5	9	16	9	21	4	3	1	1	5	1	3	5	1	–	2	5	6	6	12	7	6	6	3	11	3	16	2	23	12	3	8	104	69	98
W. by S.	2	3	–	3	2	1	2	2	3	1	–	–	–	1	–	–	–	–	1	1	1	1	1	2	2	–	3	1	1	–	2	2	3	3	–	1	18	13	14
W	6	17	3	13	6	8	16	4	8	9	6	1	–	8	–	–	5	3	2	3	2	7	6	9	7	6	7	6	16	5	16	3	19	5	2	4	87	82	69
W. by N.	1	2	1	4	5	–	2	–	1	1	–	–	–	3	–	–	1	–	–	–	–	–	1	2	4	1	1	–	2	–	7	1	3	1	1	1	20	17	9
W.N.W.	13	11	4	10	27	2	7	4	10	5	5	1	–	29	5	–	1	1	3	–	1	6	7	5	8	1	5	13	35	2	9	5	28	13	3	8	87	128	72
N.W. by W.	1	–	–	2	–	–	1	–	1	–	–	1	1	2	–	–	1	–	–	–	–	–	1	–	1	–	–	2	2	–	2	–	1	–	–	–	10	6	3
N.W.	4	5	4	14	19	5	12	10	9	2	1	4	–	25	1	2	1	5	–	1	1	3	10	4	5	3	7	33	21	3	7	6	25	2	2	3	84	104	71
N.W. by N.	–	1	–	1	2	–	1	1	1	1	–	–	–	3	–	–	–	–	–	1	–	–	1	–	1	–	–	2	1	–	–	1	–	–	–	–	6	11	1
N.N.W.	–	3	1	8	13	–	4	5	6	6	3	1	–	13	2	–	1	–	3	1	1	2	4	1	1	3	5	20	5	–	4	5	10	2	2	3	50	58	30
N. by W.	1	–	–	1	1	–	–	–	–	–	1	1	–	13	–	–	1	–	–	–	–	–	1	1	1	–	1	3	1	–	–	–	5	1	–	–	7	18	8
Calm	3	–	–	1	–	–	–	–	1	1	2	–	–	1	–	2	1	1	2	–	1	2	–	1	–	–	2	1	1	1	–	–	–	2	1	2	14	6	9
Variable	1	3	3	1	3	4	1	4	3	1	–	–	–	4	–	–	1	1	1	–	3	1	–	–	3	1	1	20	1	–	3	1	8	2	–	5	34	18	28
Unknown	2	5	11	2	4	12	–	5	5	2	1	3	1	5	2	3	7	–	1	2	–	3	4	5	5	5	5	27	9	1	11	5	7	6	4	4	63	56	55
Total	115	206	137	139	137	355	136	70	95	126	70	50	32	187	36	27	74	35	34	30	48	52	74	73	86	84	97	343	156	90	170	164	350	156	126	128	1,416	1,379	1,494

Table 12. Wrecks and Casualties, distinguishing them according to the FORCE of the Wind.

Force of Wind.*	January.					February.					March.					April.					May.					June.					July.				
	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861
Force 0	1	1	5	—	2	1	2	2	—	1	3	1	—	—	1	—	—	1	2	—	4	1	1	1	—	2	2	2	1	1	1	2	2	—	—
„ 1	1	1	2	5	1	4	1	5	2	1	3	3	3	1	—	5	4	5	5	3	1	2	1	2	1	2	5	4	—	1	1	3	6	—	1
„ 2	9	6	7	4	5	10	2	7	3	1	3	2	7	1	5	6	4	3	3	5	4	4	4	3	7	5	3	4	3	7	5	3	2	7	—
„ 3	3	4	7	2	4	4	5	4	—	3	5	2	4	1	3	5	4	1	2	6	2	—	2	—	4	—	2	—	1	3	1	3	—	1	4
„ 4	10	3	5	14	13	5	1	17	10	8	7	9	11	5	7	12	2	9	6	11	4	3	5	5	4	4	—	7	7	3	3	2	2	6	3
„ 5	18	11	19	20	20	18	18	16	15	14	16	11	21	12	13	14	16	12	11	17	10	10	8	17	5	9	7	2	6	10	9	14	6	3	7
„ 6	20	22	14	33	18	4	27	26	17	18	17	28	21	18	6	16	11	20	15	4	1	8	6	8	10	5	4	—	8	3	3	6	4	6	14
„ 7	19	7	8	15	2	6	10	10	11	8	10	14	11	3	2	7	9	16	6	1	2	2	—	5	3	3	3	—	1	2	1	8	2	1	2
„ 8	11	10	4	36	18	3	8	15	11	15	21	13	16	10	8	—	10	8	10	2	1	4	3	6	1	—	—	2	10	1	4	4	3	—	5
„ 9	39	24	15	31	27	3	16	20	15	40	34	28	22	6	24	6	24	31	6	—	—	8	1	16	—	2	3	1	9	1	4	8	5	1	7
„ 10	81	19	16	32	15	3	21	10	16	136	28	22	12	6	14	3	27	13	—	—	2	5	—	27	—	2	1	1	9	—	1	5	—	2	3
„ 11	57	15	7	9	6	2	5	1	24	76	14	12	6	—	4	2	3	5	1	—	2	1	—	28	—	—	—	—	12	—	—	3	—	—	—
„ 12	12	1	—	2	—	1	—	2	9	19	5	3	1	—	1	—	1	—	—	—	—	—	—	67	—	—	—	—	3	—	—	—	—	—	—
Unknown	—	—	6	3	3	—	—	4	4	13	—	—	1	8	7	—	—	2	3	1	—	—	1	1	1	—	—	4	4	3	—	—	1	3	2
Variable -	—	—	—	—	3	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—
TOTAL -	281	124	115	206	137	64	116	139	137	355	166	148	136	71	95	76	115	126	70	50	33	48	32	187	36	34	30	27	74	35	33	61	34	30	48

(*Continued.*)

Force of Wind.*	August.					September.					October.					November.					December.					TOTAL.				
	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861	1857	1858	1859	1860	1861
Force 0	4	1	2	—	1	1	1	—	—	2	—	3	2	2	1	1	—	1	1	—	—	1	3	1	1	18	15	21	8	10
„ 1	2	—	5	1	1	3	3	—	2	—	3	2	3	3	—	2	3	4	—	1	5	4	4	2	4	32	31	42	23	14
„ 2	9	4	3	7	7	8	6	4	3	2	4	6	8	4	5	8	—	5	4	1	5	5	6	5	6	76	45	60	47	51
„ 3	6	2	3	1	—	4	3	1	1	1	6	5	2	1	—	3	3	6	3	8	7	6	3	1	7	46	39	33	14	43
„ 4	12	2	3	6	12	5	10	7	6	6	7	9	8	4	10	12	7	12	14	13	5	11	7	7	13	86	59	93	90	103
„ 5	25	10	5	9	15	17	19	14	14	17	13	18	23	9	9	20	12	23	21	28	20	21	25	14	16	189	167	174	151	171
„ 6	7	5	9	12	10	17	15	10	5	14	13	17	24	7	17	22	18	21	26	13	14	24	25	16	22	139	185	180	171	149
„ 7	7	5	—	6	6	2	11	6	2	7	17	13	3	7	11	6	9	9	18	15	5	7	6	15	7	85	98	71	90	66
„ 8	—	1	3	1	3	7	7	7	7	6	15	10	12	7	8	8	9	12	20	39	1	9	17	19	18	71	85	102	137	124
„ 9	3	3	12	23	10	1	10	14	14	25	21	22	38	22	15	4	29	15	32	68	17	26	35	18	13	134	201	209	193	230
„ 10	—	—	3	4	4	—	4	15	22	12	22	31	70	27	4	2	19	28	15	112	4	17	14	8	11	148	171	182	168	311
„ 11	—	—	—	—	1	—	1	1	4	—	14	6	55	8	2	—	9	11	5	10	3	2	2	10	3	94	57	88	101	102
„ 12	—	—	—	—	—	1	1	4	1	—	—	4	67	53	3	6	—	13	1	29	—	1	—	3	—	25	11	87	139	52
Unknown	—	—	4	4	2	—	—	2	2	5	—	2	25	2	4	—	2	8	3	2	—	2	9	5	5	—	6	67	42	48
Variable -	—	—	—	—	1	—	—	1	1	—	—	—	3	—	1	—	—	2	1	11	—	—	—	2	2	—	—	7	5	20
TOTAL	75	33	52	74	73	66	91	86	84	97	135	148	343	156	90	94	120	170	164	350	86	136	156	126	128	1,143	1,170	1,416	1,379	1,494

* Figures to denote the Force of the Wind.

0. Calm.
1. Light Airs - Just sufficient to give steerage way.
2. Light Breezes - With which a Ship with all Sail set and clean full would go in smooth water. to 2 knots.
3. Gentle Breeze - to 4 „
4. Moderate Breeze - 5 to 6 „
5. Fresh Breeze - In which she could just carry in chase, full and by Royals, &c.
6. Strong Breeze - Single Reefs and T.G. Sails.
7. Moderate Gale - Double Reefs and Jib.
8. Fresh Gale - Triple Reefs, &c.
9. Strong Gale - Close Reefs and Courses.
10. Whole Gale - In which she could just bear close-reefed Main Topsail and reefed Foresail.
11. Storm - Under Storm Staysail.
12. Hurricane - Under Bare Poles.

Table 13. Wrecks and Casualties, distinguishing the Description of CERTIFICATES held by the Masters of the Ships.

Year.	Ships commanded by Masters holding Certificates of Competency.			Ships commanded by Masters holding Certificates of Service.			Ships in Home and Coasting Trade, commanded by Masters not required to have Certificates.	Ships commanded by Foreigners not holding British Certificates.	Unknown.	Total.
	In Foreign Trade.	In Home Trade.	Total.	In Foreign Trade.	In Home Trade.	Total.				
1856	—	—	261	—	—	290	297	210	95	1,153
1857	133	79	212	97	198	295	335	198	103	1,143
1858	118	83	201	96	146	242	431	178	118	1,170
1859	110	107	217	80	264	344	597	187	71	1,416
1860	85	153	238	48	303	351	554	186	50	1,379
1861	140	126	266	78	266	344	619	227	38	1,494

Table 14. Wrecks and Casualties, distinguishing the Ships and Cargoes INSURED and UNINSURED, and the Amount of Insurance where known.

Months in which Casualties happened.	Number of Vessels and Cargoes reported to be Insured, and the Amount of Insurance.					Number of Vessels and Cargoes reported as not Insured.		Number of Vessels and Cargoes, whether Insured or not, unknown.		Ships in Ballast.	Total.	*Out of the total number of Ships and Cargoes lost or damaged, the estimated loss of the following only have been reported.				Total estimated Loss as reported.
	Vessels.		Cargoes.		Total Amount of Insurance.							Vessels.		Cargoes.		
	Number.	Amount.	Number.	Amount.		Vessels.	Cargoes.	Vessels.	Cargoes.			Number.	Amount.	Number.	Amount.	
		£		£	£								£		£	£
January -	55	60,254	7	51,420	111,674	17	6	65	104	20	137	79	111,255	26	66,979	178,234
February -	147	167,538	22	9,959	177,497	72	63	136	226	44	355	253	217,300	130	30,463	247,963
March - -	45	65,617	13	6,318	71,935	19	10	31	57	15	95	77	66,455	28	20,582	87,037
April - -	23	40,500	4	4,820	45,320	16	10	11	28	8	50	43	16,043	13	1,954	17,997
May - -	20	33,860	4	10,550	44,410	7	5	9	20	7	36	33	17,861	9	11,768	29,629
June - -	15	11,200	3	2,000	13,200	11	9	9	20	3	35	29	11,420	14	4,183	15,603
July - -	29	54,533	6	8,690	63,223	9	6	10	30	6	48	39	18,753	14	1,355	20,108
August - -	33	55,570	10	17,335	72,905	17	9	23	44	10	73	63	34,070	17	2,095	36,165
September -	48	63,595	10	15,780	79,375	25	13	24	55	19	97	82	47,842	32	9,651	57,493
October -	51	60,607	8	11,494	72,101	18	14	21	58	10	90	80	38,636	35	9,141	47,777
November -	193	182,192	25	7,073	189,265	78	34	79	194	97	350	310	142,626	90	56,341	198,967
December -	57	73,600	10	6,085	84,685	31	18	40	71	29	128	103	54,895	34	9,089	63,984
Total in 1861	716	874,066	122	151,524	1,025,590	320	197	458	907	268	1,494	1,191	777,356	442	223,601	1,000,957
Total in 1856	484	—	110	—	—	179	264	490	592	187	1,153	—	—	—	—	—
Total in 1857	599	451,513	84	21,622	473,135	179	118	365	741	200	1,143	507	393,859	169	125,442	519,301
Total in 1858	476	388,904	62	25,413	414,317	232	152	462	765	191	1,170	576	343,117	228	92,648	435,765
Total in 1859	554	587,772	87	101,212	688,984	316	173	546	923	233	1,416	860	528,261	294	221,860	750,121
Total in 1860	514	463,005	57	21,274	484,279	280	145	585	893	284	1,379	817	508,754	258	94,311	603,065

* *Note.*—The Figures given in this part of the Table depend on information furnished by the Officers of the ships at the time of the casualty, and are consequently but approximations.

Table 15. Wrecks and Casualties (excluding Collisions) which have involved TOTAL LOSS, distinguishing the Cause of each Loss.

Months in which Casualties happened.	Class I. Arising from Stress of Weather.											Class II. Arising from Inattention, Carelessness, and Neglect.								Class III. Arising from Defects in Ships or Equipments.							Class IV. Arising from various Causes.																				Causes unknown.	Total.
	Foundered.	Driven or run on a Lee Shore.	Parted Cables.	Dragged Anchors.	Loss or Breakage of Rudder.	Damage to Hull or Loss of Masts, Yards, or Sails.	Shifting of Cargo or Ballast.	Missing Stays.	Failing to make Harbour.	Abandoned at Sea.	Capsized.	Mistaking Lights or Bearings.	Error in Course or Reckoning.	Not heaving Lead.	Anchors not clear.	Error, Neglect, or Incompetency of Pilots.	Intemperance.	Want of Seamanship.	General Negligence and want of Caution.	Foundered from Unseaworthiness.	Overladen.	Unsound Gear or Equipments, imperfect Repairs, or defective Construction.	Local Attraction of Compasses.	Defective Compasses.	Defective Charts.	Insufficient Manning.	Pricked on Anchor.	Thick and Foggy Weather.	Want of Lights and Buoys on Coasts and Shoals.	Want of Pilot.	Strong Currents and light Winds.	Spontaneous Combustion.	Ignorance of Coast.	Striking on Sunken Wreck.	Error in Judgment.	Combination of Causes.	Want of Power in Steam Tugs.	Tow Ropes breaking.	Burned.	Bursting of Boilers or Damage to Machinery.	Inevitable Accident.		
January	3	4	–	–	2	1	–	1	1	1	–	2	1	6	–	2	–	1	–	5	–	1	–	–	–	–	–	4	–	1	–	1	–	–	–	–	–	1	1	–	1	5	44
February	23	75	14	6	2	10	1	1	7	4	1	–	–	1	–	–	–	2	7	–	–	–	–	–	–	–	–	1	–	1	–	–	–	3	–	–	–	–	4	4	167
March	1	2	1	4	–	2	–	–	–	1	–	2	–	3	–	–	1	–	2	2	–	–	–	–	–	–	–	–	1	–	–	1	–	–	5	–	–	–	–	3	31
April	–	–	1	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	1	–	9
May	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	4	–	–	–	–	–	–	–	1	–	–	–	–	–	2	–	–	–	–	1	1	10
June	–	–	–	–	–	–	–	–	–	–	1	–	–	2	–	–	–	–	–	6	–	–	–	–	–	–	–	1	–	–	1	–	–	1	–	–	1	–	–	1	–	14
July	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	9	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	13
August	1	2	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	–	3	4	–	–	–	–	–	–	–	2	–	–	1	–	–	–	2	–	–	–	–	2	19
September	4	2	4	–	–	1	2	–	–	2	–	–	1	1	–	1	–	–	2	5	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	5	33
October	6	1	1	–	–	3	–	2	1	–	1	–	1	2	–	–	–	1	2	2	–	–	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	–	–	–	26
November	22	21	16	3	3	10	–	1	2	6	1	1	–	3	–	1	–	–	6	3	1	–	–	–	–	1	–	–	1	2	–	–	1	2	2	–	–	–	–	4	113
December	1	2	–	–	1	1	2	–	–	3	–	1	1	3	–	2	–	–	1	3	–	–	–	–	–	–	–	4	–	–	1	–	–	1	3	–	–	–	–	4	–	34
Total in 1861	61	109	37	14	8	28	5	6	11	18	5	7	4	21	–	7	1	4	25	45	1	1	–	–	–	1	–	17	1	3	6	1	1	2	19	3	1	2	1	–	12	25	513
Total in 1857	42	81	20	16	4	11	6	12	3	10	2	10	7	22	1	3	1	3	19	29	1	–	1	2	–	1	–	24	2	3	12	5	3	3	4	8	1	3	2		1	7	384
Total in 1858	36	48	14	13	3	11	1	22	3	21	4	13	1	18	1	5	1	2	17	45	4	3	1	2	–	–	1	25	4	1	7	–	3	2	6	–	–	1	10	1	–	4	354
Total in 1859	80	72	41	17	2	27	5	15	15	21	3	11	6	20	–	7	–	3	18	32	–	4	–	3	2	1	–	23	2	4	12	4	5	5	14	3	–	5	4	2	6	33	527
Total in 1860	53	73	45	35	3	19	5	10	11	17	7	14	6	21	–	8	2	6	35	39	2	1	1	5	–	1	–	17	–	2	7	1	3	2	8	3	3	2	1	–	2	6	476

Table 16. Wrecks and Casualties (excluding Collisions) which have involved SERIOUS DAMAGE, distinguishing the Cause of each Accident.

Months in which Casualties happened.	Class I. Arising from Stress of Weather.											Class II. Arising from Inattention, Carelessness, or Neglect.								Class III. Defects in Ships or Equipments.						Class IV. Arising from various Causes.																Causes unknown.	Total.
	Leaky.	Driven or run on Lee Shore.	Parted Cables.	Dragged Anchors.	Loss or Breakage of Rudder.	Damage to Hull or Loss of Masts, Yards, or Sails.	Shifting of Cargo or Ballast.	Missing Stays.	Failing to make Harbour.	Abandoned at Sea.	Capsized.	Mistaking Lights or Bearings.	Error in Course or Reckoning.	Not heaving Lead.	Anchors not clear.	Error, Neglect, or Incompetency of Pilots.	Intemperance.	Improper Stowage of Cargo.	Want of Seamanship.	General Negligence and want of Caution.	Leaky from Unseaworthiness.	Overladen.	Unsound Gear or Equipments, imperfect Repairs, or defective Construction.	Local Attraction of Compasses.	Defective Compasses.	Defective Charts.	Insufficient Manning.	Pricked on Anchor.	Thick and Foggy Weather.	Want of Lights or Buoys on Coasts and Shoals.	Want of Pilot.	Strong Currents and Light Winds.	Spontaneous Combustion.	Ignorance of Coast.	Striking on sunken Wreck.	Error in Judgment.	Combination of Causes	Want of Power in Steam Tugs.	Tow Ropes breaking.	Want of Sea Room.	Injured by Fire or Lightning.	Bursting of Boilers or Damage to Machinery.	Accidental.		
January -	9	1	1	3	4	6	–	4	1	1	1	3	1	3	–	3	–	–	2	3	2	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	2	–	1	–	55
February -	19	49	14	4	2	28	1	3	3	2	–	2	–	4	–	1	1	–	–	6	3	–	1	–	–	–	–	1	1	–	1	2	1	–	–	1	–	–	–	–	1	–	152
March -	4	–	3	1	–	13	1	1	1	1	–	–	–	1	–	1	1	–	–	1	1	–	–	–	–	–	–	1	2	–	–	–	1	–	–	–	–	–	–	–	2	–	36
April -	–	–	–	–	–	–	–	1	–	–	1	–	–	1	–	1	–	–	1	1	2	–	1	–	–	–	–	3	–	–	–	1	–	2	–	–	–	–	–	–	–	1	–	16
May -	–	–	–	–	–	2	–	1	–	–	–	–	–	1	–	–	–	–	–	4	1	–	–	–	–	–	–	2	–	–	–	–	1	–	–	–	–	–	–	–	–	–	12
June -	1	–	–	–	–	2	–	1	–	–	1	–	–	2	–	–	–	–	–	1	3	–	2	–	–	–	–	1	1	–	–	–	1	–	–	1	–	–	–	–	–	–	17
July - -	5	–	1	1	–	4	–	–	–	–	–	1	–	–	–	1	–	–	1	1	4	1	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	2	–	24
August -	8	–	–	1	–	5	–	1	–	–	–	–	–	1	–	–	–	–	–	3	1	–	5	–	–	–	–	–	3	–	–	1	–	–	–	–	–	–	–	–	–	–	29
September -	5	1	–	–	1	9	1	1	–	1	–	2	–	1	–	2	–	1	1	1	6	–	1	–	1	–	–	–	2	–	–	2	–	1	–	2	–	–	–	–	–	–	42
October -	4	–	1	3	1	8	–	–	1	–	–	–	1	–	–	1	–	–	–	2	3	1	7	–	–	–	–	–	2	–	1	1	1	–	–	–	–	–	–	–	2	1	42
November -	21	20	14	12	1	67	4	2	4	1	–	–	2	3	–	1	–	–	–	–	2	–	3	–	–	–	–	2	–	1	–	–	1	–	3	–	1	2	1	–	–	6	–	174
December -	11	2	1	3	–	5	–	–	1	1	–	3	–	4	–	6	–	–	–	1	2	–	2	–	–	–	–	–	5	–	–	2	–	1	2	2	–	–	–	–	1	2	2	–	59
Total in 1861	87	73	35	28	9	149	7	15	11	7	3	11	4	21	–	17	2	1	5	24	30	2	23	–	1	–	–	3	25	4	1	7	3	5	4	12	–	1	3	1	4	2	17	1	658
Total in 1857	62	42	29	21	4	61	7	17	9	12	2	16	5	18	1	12	1	1	3	29	20	2	5	2	7	2	–	3	47	2	3	8	2	3	–	10	7	2	2	–	–	–	–	3	482
Total in 1858	62	33	38	21	7	82	14	18	13	6	1	15	8	20	–	13	–	–	6	34	30	–	8	1	2	2	–	2	38	–	3	5	4	4	3	14	1	–	2	1	2	–	–	2	515
Total in 1859	101	19	32	23	5	95	5	13	10	3	2	6	10	18	–	10	3	–	3	21	20	–	14	–	6	2	–	1	39	2	–	11	2	4	6	22	3	2	7	–	1	1	13	5	540
Total in 1860	56	42	41	28	2	146	17	9	16	8	2	9	5	16	–	14	–	–	7	42	14	4	17	4	4	4	2	4	26	3	6	7	1	7	6	10	4	–	–	1	1	1	12	7	605

Table 17. Wrecks and Casualties arising from COLLISIONS which have involved TOTAL LOSS, distinguishing the Causes of the Collisions.

Months in which Casualties happened.	Breaking Sheer and Fouling.	Missing Stays.	Anchoring in Foul Berth.	Want of Sea Room.	Thick and Foggy Weather.	Bad Look-out.	Neglecting to show Light.	Neglect of Rule of Road at Sea.	Error of Pilot.	Want of Seamanship.	General Negligence and want of Caution.	Inevitable Accident.	Error in Judgment.	Cause unknown.	Total.
January -	–	–	–	–	–	–	2	2	–	–	–	–	–	1	5
February -	–	–	–	–	.	3	–	1	..	–	1	1	–	–	6
March -	1	–	–	–	–	3	1	3	–	–	–	1	–	–	9
April -	–	–	–	–	–	–	1	2	–	–	–	–	–	–	3
May - -	–	–	–	–	1	1	–	–	–	–	–	–	–	–	2
June - -	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
July - -	–	–	–	–	–	1	–	1	–	–	–	–	–	–	2
August -	–	–	–	–	–	1	–	2	–	–	–	–	–	–	3
September -	–	–	–	–	–	2	3	–	–	–	–	–	–	1	6
October -	–	–	–	–	1	2	2	1	–	–	–	–	–	–	6
November -	–	–	–	–	–	6	–	4	–	1	1	1	1	–	14
December -	–	–	–	1	–	1	1	2	–	–	–	–	–	–	5
Total in 1861	1	–	–	1	2	20	11	18	–	1	2	3	1	2	62
Total in 1856	–	–	–	–	5	15	7	11	–	–	5	–	3	5	51
Total in 1857	–	1	1	1	3	23	5	8	1	–	8	–	–	2	53
Total in 1858	1	1	–	–	5	10	5	13	–	2	7	2	–	4	50
Total in 1859	2	–	–	–	7	18	5	12	–	1	2	8	–	3	58
Total in 1860	2	1	–	–	2	19	5	12	1	2	5	9	2	5	65

Table 18. Wrecks and Casualties arising from COLLISIONS involving PARTIAL LOSS, distinguishing the Causes of the Collisions.

Months in which Casualties happened.	Breaking Sheer and Fouling.	Missing Stays.	Anchoring in Foul Berth.	Want of Sea Room.	Thick and Foggy Weather.	Bad Look-out.	Neglecting to show Light.	Neglect of Rule of Road at Sea.	Error of Pilot.	Want of Seamanship.	General Negligence and want of Caution.	Inevitable Accident.	Error in Judgment.	Cause unknown.	Total.
January -	2	–	1	–	4	9	3	4	–	1	5	2	1	1	33
February -	4	–	–	–	–	6	3	4	–	1	4	5	1	2	30
March - -	–	1	–	–	–	3	1	4	–	2	4	3	1	–	19
April - -	1	–	–	–	1	3	1	8	–	1	1	3	1	2	22
May - -	–	1	–	–	3	1	1	3	–	–	1	2	–	–	12
June - -	–	–	1	–	1	1	–	–	–	–	–	–	–	–	3
July - -	–	–	–	–	1	4	–	3	–	–	–	–	–	1	9
August -	3	–	–	–	1	4	–	5	–	2	4	–	2	1	22
September -	2	–	–	1	1	5	1	1	–	–	4	–	1	–	16
October -	1	–	–	–	1	2	3	2	–	2	5	–	–	–	16
November -	3	1	2	1	4	8	2	7	–	2	5	10	4	–	49
December -	3	2	–	–	2	8	3	6	1	–	–	3	2	–	30
Total in 1861	19	5	4	2	19	54	18	47	1	11	33	28	13	7	261
Total in 1856	–	–	–	–	–	–	–	–	–	–	–	–	–	–	265
Total in 1857	13	2	2	4	18	65	13	22	1	9	57	–	4	14	224
Total in 1858	22	6	2	9	25	37	25	25	1	14	42	22	7	14	251
Total in 1859	23	3	1	4	17	65	15	66	1	5	20	41	25	5	291
Total in 1860	32	1	7	4	11	52	13	30	2	16	26	21	11	7	233

Table 19. SUMMARY of Tables 15, 16, 17, and 18.

——	Collisions.						Casualties other than Collisions.						Total Casualties.					
	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861
Casualties involving **total** loss -	51	53	50	58	65	62	368	384	354	527	476	513	419	437	404	585	541	575
Casualties involving **partial** loss -	265	224	251	291	233	261	469	482	515	540	605	658	734	706	766	831	838	919
TOTAL CASUALTIES	316	277	301	349	298	323	837	866	869	1,067	1,081	1,171	1,153	1,143	1,170	1,416	1,379	1,494

Table 20. Wrecks and Casualties arising from COLLISION, distinguishing the TIME and the STATE OF THE WEATHER when each Collision happened.

Month in which Casualties happened.	TIME.																			Gross Total.
	Between 6 A.M. and 6 P.M.									Between 6 P.M. and 6 A.M.										
	Dark.	Dark and Clear.	Very Dark.	Hazy.	Cloudy.	Thick and Foggy.	Clear and Fine.	Squally or unknown.	Total.	Dark.	Dark and Clear.	Very Dark.	Hazy.	Cloudy.	Thick and Foggy.	Clear and Fine.	Squally or unknown.	Total.	
January - - -	–	–	–	1	–	3	7	2	13	1	–	–	4	5	4	9	2	25	38
February - - -	–	–	–	–	2	2	3	2	9	–	–	–	5	3	2	6	11	27	36
March - - - -	–	–	–	1	–	–	3	4	8	1	–	–	2	6	–	9	2	20	28
April - - - -	–	–	–	–	–	–	7	1	8	–	–	–	1	3	3	9	1	17	25
May - - - -	–	–	–	–	1	2	3	–	6	2	–	–	–	–	2	1	3	8	14
June - - -	–	–	–	–	–	1	–	1	2	–	–	–	1	–	–	1	–	2	4
July - - - -	–	–	–	–	–	–	2	1	3	–	–	–	–	1	1	4	2	8	11
August - - -	–	–	–	–	–	–	4	2	6	–	–	–	2	2	4	9	2	19	25
September - - -	–	–	–	–	–	–	1	–	1	1	–	–	1	3	5	6	5	21	22
October - - -	–	–	–	–	–	3	1	1	5	1	–	–	1	3	2	7	3	17	22
November - - -	–	–	–	–	4	1	7	11	23	2	–	–	2	3	9	15	9	40	63
December - - -	–	–	–	–	3	1	4	2	10	2	–	–	4	5	2	11	1	25	35
Total in 1861 - -	–	–	–	2	10	13	42	27	94	10	–	–	23	34	34	87	41	229	323
Total in 1856 - -	–	2	–	12	9	5	36	2	66	31	4	5	80	20	19	81	10	250	316
„ 1857 - -	1	–	–	11	7	11	41	4	75	25	8	–	28	16	28	76	21	202	277
„ 1858 - -	–	–	–	10	8	10	36	12	76	17	5	7	37	22	38	79	20	225	301
„ 1859 - -	1	1	–	5	10	15	62	22	116	12	8	1	26	29	45	87	25	233	349
„ 1860 - -	2	–	–	4	6	13	42	19	86	16	6	7	20	21	26	81	35	212	298

Table 21. WRECKS and CASUALTIES arising from COLLISION during the Years 1850 to 1861, inclusive both Vessels under Way from those happening with

Month.	Hour at which Sun rises and sets.	Collision between Two Steam Vessels.												Collision between Two Sailing Vessels.											
		Both under Way.						One under Way and One at Anchor.						Both under Way.						One under Way and One at Anch					
		1850	1851	1852	1853	1854	1855	1850	1851	1852	1853	1854	1855	1850	1851	1852	1853	1854	1855	1850	1851	1852	1853	1854	1
January	—	–	–	–	–	–	1	–	–	–	–	–	–	2	17	3	12	10	9	1	5	–	1	1	
February	—	–	–	–	–	–	–	–	–	–	–	–	–	2	12	9	13	7	7	–	–	1	–	–	
March	—	–	–	–	–	–	–	–	–	–	–	–	–	5	9	2	3	3	8	–	1	–	–	–	
April	—	–	–	–	–	1	1	–	–	–	–	–	–	1	6	4	8	9	13	–	1	2	–	–	
May	—	–	1	–	–	–	–	–	–	–	–	–	–	2	3	1	3	1	10	–	–	–	1	–	
June	—	–	–	–	–	–	–	–	–	–	–	–	–	–	2	1	1	1	5	–	–	–	–	–	
July	—	–	–	1	–	–	–	–	–	–	–	–	–	–	1	2	2	1	10	–	–	–	–	–	
August	—	–	–	–	–	1	–	–	–	–	–	–	–	1	2	4	2	5	9	–	–	1	–	–	
September	—	–	–	–	–	–	1	–	–	–	–	–	–	2	11	11	4	3	9	–	–	–	–	–	
October	—	–	–	–	–	–	2	–	–	–	–	–	–	2	13	7	3	14	15	–	–	2	1	–	
November	—	–	–	–	–	–	–	–	–	–	–	–	–	6	35	8	3	15	36	–	–	3	–	–	
December	—	–	1	1	1	–	1	–	–	–	–	–	–	2	13	9	7	8	41	–	3	–	–	1	
		–	2	2	1	2	6	–	–	–	–	–	–	25	124	61	61	77	172	1	10	9	3	2	

(*Continued.*)

Month.	Hour at which Sun rises and sets.	Collision between Two Steam Vessels.																		Collision between Two Sailing Vessels.																	
		Both under Way.										One under Way and One at Anchor.								Both under Way.										One under Way and One at Anchor.					
		1856		1857		1858		1859		1860		1856		1857		1858		1859		1860		1856		1857		1858		1859		1860		1856		1857		1858	
		Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.
January	{8.8 / 4.0}	–	–	–	2	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	18	3	13	–	12	1	18	–	11	–	–	4	5	–	3
February	{7.42 / 4.46}	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	15	2	8	2	10	8	21	1	12	–	2	–	1	1	5
March	{6.48 / 5.39}	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	18	3	16	5	13	5	16	4	8	4	5	–	–	1	8
April	{5.36 / 6.33}	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	12	–	9	3	6	3	9	1	3	–	2	2	1	–	1
May	{4.33 / 7.22}	–	–	1	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	17	3	3	4	1	2	2	4	7	1	–	–	–	1	1
June	{3.52 / 8.5}	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	3	4	1	–	6	2	3	8	3	–	–	–	–	1
July	{3.50 / 8.17}	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	5	3	5	8	4	1	3	2	2	–	–	–	–	2	–
August	{4.26 / 7.45}	1	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	3	4	11	–	10	3	3	5	4	–	1	–	–	–	2
September	{5.15 / 6.44}	1	1	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	8	4	9	5	13	5	8	1	12	–	–	1	1	–	1
October	{6.2 / 5.36}	–	–	1	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	23	2	16	2	17	2	26	–	14	1	1	–	1	3	3
November	{6.56 / 4.31}	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	19	–	13	1	14	5	18	9	19	3	7	–	2	1	3
December	{7.45 / 3.52}	–	1	–	1	–	1	–	2	1	–	–	–	–	–	–	–	–	–	–	–	4	17	6	13	5	13	2	13	1	11	–	5	3	3	1	5
		2	4	2	5	2	8	1	2	2	1	–	–	–	1	–	–	–	–	–	–	22	157	33	120	36	113	43	139	31	111	12	23	10	14	10	33
		6		7		10		3		3		→		1		–		–		–		179		153		149		182		142		35		24		43	

(*Continued.*)

Month.	Hour at which Sun rises and sets.	Collision between Two Steam Vessels.				Collision between Two Sailing Vessels.			
		Both under Way.		One under Way and One at Anchor.		Both under Way.		One und Way and C Anchor	
		1861		1861		1861		1861	
		Day.	Night.	Day.	Night.	Day.	Night.	Day.	
January	{8.8 / 4.0}	—	—	—	—	3	20	2	
February	{7.42 / 4.46}	—	—	—	—	5	21	2	
March	{6.48 / 5.39}	—	—	—	—	1	15	4	
April	{5.36 / 6.33}	—	—	—	—	9	11	—	
May	{4.33 / 7.22}	—	—	—	—	4	5	3	
June	{3.52 / 8.5}	—	—	—	—	1	—	—	
July	{3.50 / 8.17}	—	—	—	—	3	5	—	
August	{4.26 / 7.45}	—	—	—	—	5	12	1	
September	{5.15 / 6.44}	—	—	—	—	—	5	1	
October	{6.2 / 5.36}	—	—	—	—	3	10	—	
November	{6.56 / 4.31}	—	1	—	—	9	22	6	
December	{7.45 / 3.52}	—	2	—	—	1	16	3	
		—	3	—	—	44	142	22	
		3		—		186		62	

NOTE.—The Collisions during the Day in 1850 to 1855 cannot be separated fro

guishing Collisions by Day from Collisions by Night, and further distinguishing Collisions happening with Vessel at Anchor and the other under Way.

Collision between a Steam Vessel and a Sailing Vessel.																	Vessels breaking sheer from Anchors or Moorings, and coming into collision.						Total in each Year.						Gross Total.
Both under Way.					Steam Vessel under Way and Sailing Vessel at Anchor.						Sailing Vessel under Way and Steam Vessel at Anchor.																		
51	1852	1853	1854	1855	1850	1851	1852	1853	1854	1855	1850	1851	1852	1853	1854	1855	1850	1851	1852	1853	1854	1855	1850	1851	1852	1853	1854	1855	
–	2	1	1	4	–	–	1	–	1	1	–	–	–	–	–	–	–	5	–	–	1	–	5	27	6	14	14	17	83
1	1	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	2	4	12	11	14	8	9	58
3	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	5	13	2	5	5	12	42
1	2	1	–	3	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	8	10	9	10	18	56
–	–	–	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	4	1	4	3	13	27
–	1	–	–	4	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	2	1	2	10	19
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	3	2	2	13	21
2	–	2	1	4	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	5	5	4	7	15	38
3	1	–	1	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	14	12	4	4	19	55
1	1	3	3	3	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	14	10	7	17	23	73
2	–	1	1	6	–	–	–	1	–	1	–	–	–	–	–	–	–	1	–	–	–	–	6	38	11	5	16	45	121
3	–	3	–	5	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	2	21	10	11	10	53	107
5	8	14	13	40	–	3	2	1	3	4	–	–	–	–	–	–	1	7	1	–	1	4	31	161	83	80	98	247	700

Collision between a Steam Vessel and a Sailing Vessel.																									Vessels breaking from Anchors or Moorings, and coming into collision.										
Both under Way.								Steam Vessel under Way and Sailing Vessel at Anchor.								Sailing Vessel under Way and Steam Vessel at Anchor.																		
1857		1858		1859		1860		1856		1857		1858		1859		1860		1856		1857		1858		1859		1860		1856		1857		1858		1859		1860	
Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.
1	8	–	5	2	6	–	4	–	–	–	2	–	1	–	1	–	2	–	–	–	–	–	–	–	–	–	–	–	2	–	4	–	3	1	–	2	7
1	3	1	5	1	7	–	5	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	1	1	–	–	–	2	2	3	7	2
4	3	2	4	–	8	1	1	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	4	2	2	1	3	2	1
1	6	–	3	1	1	1	4	–	–	1	2	–	–	–	–	1	–	–	–	–	–	1	–	–	1	–	–	2	–	–	–	–	1	1	1	1	2
1	1	2	2	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2	–	–	5	–
1	2	–	1	–	–	–	–	–	1	1	–	–	2	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	2	–	–	1	–	–	1	–
–	–	–	3	2	3	4	1	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
2	8	–	2	–	2	5	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	3	3
1	6	–	4	1	3	1	3	–	–	–	–	–	3	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	1	–	2
–	7	1	13	1	6	1	3	2	–	–	1	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	4	2	2	2	5	2	1
1	5	3	2	–	5	1	5	–	–	–	1	–	1	–	1	1	1	–	–	–	–	–	–	–	–	–	–	3	10	1	–	1	3	2	3	1	9
–	4	1	8	1	5	–	3	–	2	–	1	–	3	–	1	–	1	–	–	–	–	–	–	–	–	–	–	1	3	–	2	–	3	–	–	–	–
13	53	10	52	10	46	15	30	4	5	2	7	1	11	1	6	4	6	–	–	–	–	1	–	–	4	–	–	10	19	3	14	5	19	10	16	25	27
66		62		56		45		9		9		12		7		10		–		–		1		4		–		29		17		24		26		52	

ion between a Steam Vessel and a Sailing Vessel.					Vessels breaking from Anchors or Moorings, and coming into collision.		Total in each Year.												Gross Total.	
Way.	Steam Vessel under Way and Sailing Vessel at Anchor.		Sailing Vessel under Way and Steam Vessel at Anchor.				1856		1857		1858		1859		1860		1861			
	1861		1861		1861															
Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.
3	—	1	—	1	—	3	1	31	8	34	–	25	7	30	5	33	5	33	26	185
—	—	1	—	—	1	3	2	27	3	12	5	22	18	48	12	23	9	27	49	160
4	—	—	—	—	1	—	7	24	7	23	10	28	10	31	8	10	6	22	48	138
3	—	—	—	—	1	—	8	15	4	18	4	12	9	15	6	10	10	15	41	85
1	—	—	—	—	—	—	2	21	5	4	7	7	3	4	12	8	7	7	36	51
1	—	—	—	—	1	—	7	6	7	6	1	6	7	2	5	10	3	1	30	31
3	—	—	—	—	—	—	4	9	3	5	11	7	3	7	7	3	3	8	31	39
1	—	—	—	—	1	2	4	5	6	20	–	15	7	6	16	12	7	18	40	76
4	—	3	—	—	—	3	4	15	6	17	5	22	10	16	4	17	1	21	30	108
3	—	2	—	—	1	—	4	29	3	30	9	35	5	42	3	21	4	18	28	175
5	1	1	—	—	1	2	9	44	2	21	6	24	10	27	13	37	20	43	60	196
4	—	1	—	—	1	3	5	33	9	24	7	33	3	29	3	20	5	30	32	169
32	1	9	—	1	8	16	57	259	63	214	65	236	92	257	94	204	80	243	451	1,413
	10		1		24		316		277		301		349		298		323		1,864	

appened at Night, in consequence of the Inaccuracy of the Returns.

Table 22. Wrecks and Casualties, distinguishing the ROCKS AND SANDS on which they happened during the Year 1861, with the Number which happened on each.

Name of Rock or Sand.	1861
Aberfraw Bank	1
Abertay Sand	1
Arranman's Barrels	1
Barber Sand	1
Barn Scar, Cumberland	1
Barnard Sand, Kessingland	1
Barnard Wharf Sand	1
Barrow Sand	1
Bay Sand, Wisbeach	1
Beasts of Holm	1
Bennet's Bank, Dublin Bay	1
Berrow Bay Sands	1
Blackhall Rocks	1
Blackwater Bank	3
Blakeney Sands	2
Boase Rocks, Cornwall	1
Boulmer Steel (?)	2
Bran Sands, Tees	1
Brazil Bank, Liverpool	2
Breaksea Sand	2
Brigg's Reef, Groomsport	2
Brigg's Rocks (East Coast)	1
Buck Share Rock, Holy Island	1
Burbo Bank	2
Burcum Sand	1
Cannon Rock, Down	3
Carrig Rocks, Greenore Point	1
Cleethorpe Sands	1
Columbine Bank, Whitstable	1
Conger Rocks, Bristol Channel	1
Corton Sand	3
Cow and Calf Rocks	1
Craig Rock, Ballywalter	1
Cross Rocks, Skerries, Dublin	1
Cross Sand, Yarmouth	6
Dirleton Sands	1
Dungeness Sands	1
Dutchman's Bank	1
Ferrier Sand, Lynn Deeps	1
Flat Holmes	1
Foveran Sands, near Newburgh	1
Freshwater Ledge	1
Girdler Sand	2
Goodwin Sands	12
Gunfleet Sand	3
Hammond's Knoll, Norfolk	1
Harry Furlong's Rocks	1
Harvey Rock, Fifeshire	1
Hasbro' Sands	7
Herd Sand	3
Holm Sand	2
Horse Shoe Island, County Ayr	1
Huttoft Bank, off Huttoft	2
Inch Rock, Frazerburgh	1
Inner Dowsing Sand	1
Kenfig Sand, Porthcawl	1
Kentish Knock	3
Kimmeridge Ledge, Dorset	2
King's Sons Rocks	1
Kish Bank	1
Law and Dove Cot Reef	1
Leman and Ower	3
Long Craig Rocks, Rattray Head	1
Long Rock, Ballywalter	1
Long Sand	8
Long Scawr Rocks, Durham	3
Mablethorpe Sands	1
Manacles Rocks	2
Margate Sands	2
Megstone Rocks, Fern Islands	1
Midde Sand, Humber	1
Middle Sand, Essex	2
Middleton Sands	17
Mixon Shoal	1
Morrison's Rocks, County Down	1
Nash Sands	2
Newcome Sand	2
Newton Rocks	1
Nore Sand	2
North Rock, County Down	1
North Wharf Bank, Fleetwood	2
Partan Steel, Holy Island	1
Peulas Rock, Anglesey	1
Peveril Ledge	2
Poulin Sand, near Loch Inchard	1
Redcar Rocks and Sands	4
Robin Rigg Sand Bank	1
Rock Angus, Strangford	1
Rocks near Flimson Head	1
Ryhope Rocks	1
Salthouse Bank, Lytham	1
Sand Bank, Ramsey	1
Sand Haile Bank, Lincolnshire	2
Scotston Briggs	1
Scroby Sand	4
Seaton Sands, Durham	3
Ship Rock, County Down	1
Shipwash Sands	3
Shivering Sands	1
Should Bank, Cumberland	2
Sizewell Bank	1
Skerries, Anglesea	1
Skerryvore Rocks	1
Skerweather Shoal, Bristol Channel	3
Skull Martin Rock, County Down	1
Sledge's Rocks, Pembrokeshire	1
Small's Rocks	1
Smithwick Sand, Bridlington	3
Souter Point	2
South Gare, Humber	1
Sow and Pigs Rocks	1
Stag Rock, near Castletown	1
Sunk Sand	3
Swallow Bank, near New Romney	1
Tetney Sand, Lincoln	1
Tongue Sand	1
Torron Rocks, Argyleshire	1
Trow Rock, Durham	1
Tynemouth Rocks	1
Udder Rock, near Looe	1
Wallace Rocks	1
West Hoyle Bank	1
West Middle Bank, Irish Sea	1
West Rocks, Harwich	1
Whitaker Spit	1
Whitburn Rocks	1
Whitby Sand	5
Whitehouse Bank, Antrim	1
Whiting Sand, Essex	1
Whiting Sand, Norfolk	1
Whitley Sand, Northumberland	1
Wolf Rocks, Cornwall	1

Table 23. The TOTAL Number of Wrecks and Casualties during the Years 1852 to 1861, inclusive distinguishing British from Foreign Ships; with the total Number of Voyages of British and Foreign Ships respectively, and the PER-CENTAGE OF CASUALTIES in each Class, as compared with the Voyages.

Year ending	Number of Voyages.			Number of Casualties.			Rate per Cent. of Casualties upon Voyages.		
	British Ships.	Foreign Ships.	Total Ships.	British Ships.	Foreign Ships.	Total Ships.	British Ships.	Foreign Ships.	Total Ships.
31 Dec. 1852	197,580	34,118	231,698	946	169	1,115	·48 or 1 in 209.	·50 or 1 in 201.	·48 or 1 in 207.
„ 1853	198,430	44,549	242,979	688	144	832	·35 or 1 in 288.	·32 or 1 in 309.	·34 or 1 in 292
„ 1854	195,165	43,510	238,675	824	163	987	·42 or 1 in 237.	·38 or 1 in 267.	·41 or 1 in 243.
„ 1855	191,813	38,238	230,051	974	167	1,141	·51 or 1 in 197.	·44 or 1 in 229.	·50 or 1 in 289.
„ 1856	206,339	40,792	247,131	916	237	1,153	·44 or 1 in 225.	·58 or 1 in 172.	·49 or 1 in 224.
„ 1857	213,185	44,818	258,003	930	213	1,143	·44 or 1 in 229.	·48 or 1 in 210.	·44 or 1 in 225.
„ 1858	201,872	45,713	247,585	961	209	1,170	·48 or 1 in 210.	·46 or 1 in 218.	·47 or 1 in 211.
„ 1859	206,652	46,713	253,365	1,228	188	1,416	·59 or 1 in 168.	·4 or 1 in 248.	·56 or 1 in 179.
„ 1860	209,026	51,165	260,191	1,193	186	1,379	·57 or 1 in 175.	·36 or 1 in 275.	·53 or 1 in 188.
„ 1861	215,234	52,536	267,770	1,273	221	1,494	·59 or 1 in 169.	·42 or 1 in 238.	·56 or 1 in 179.
TOTAL -	2,035,296	442,152	2,477,448	9,933	1,897	11,830	·44 or 1 in 205.	·43 or 1 in 233.	·48 or 1 in 209.

The Channel Islands are not included in this Return.

NOTE.—These Figures do not agree with those in the Return moved for by Mr. Henley, on 13th March 1857; as in that Return the per-centages are calculated on the No. of Entrances and Clearances, which in the case of Coasters is double the number of the voyages. In this Table a per-centage of the *whole* number of Wrecks and Casualties is taken upon the *whole* number of Voyages, without the deductions marked * in Table No. 3.

Table 24. Wrecks and Casualties for 1861, compared with the Six preceding Years.

Description of Casualty.	Total Number of Wrecks reported in the Years							Total Number in Seven Years.	Average.
	1855.	1856.	1857.	1858.	1859.	1860.	1861.		
Wrecks and Casualties otherwise than by Collision - -	894	837	866	869	1,067	1,081	1,171	6,785	969 3/7
Collisions - -	247	316	277	301	349	298	323	2,111	301 4/7
Totals - -	1,141	1,153	1,143	1,170	1,416	1,379	1,494	8,896	1,270 6/7

From this Table it will be seen that the Wrecks and Strandings reported in 1861 show—

An increase of 7·69 per cent. as compared with 1860.
An increase of 8·88 per cent. as compared with 1859.
An increase of 25·8 per cent. as compared with 1858.
An increase of 26·0 per cent. as compared with 1857.

And that the Collisions reported in 1861 show—

An increase of 7·74 per cent. as compared with 1860.
A decrease of 7·45 per cent. as compared with 1859.
An increase of 6·81 per cent. as compared with 1858.
An increase of 14·24 per cent. as compared with 1857.

PART II.

CONTAINING

A STATEMENT OF THE NUMBER OF LIVES LOST,

A STATEMENT OF THE NUMBER SAVED,

THE MEANS ADOPTED FOR SAVING LIFE,

AND THE

SUMS EXPENDED ON ACCOUNT THEREOF.

Table 25. Number of LIVES LOST during the Year 1861, COMPARED with the EIGHT PRECEDING YEARS.

By the Returns made during the Year 1861, it appears that of the total number of persons on board ships to which casualties have happened, on the Coasts of the United Kingdom, the Lives of 5508 were imperilled, of which number 884, or 16 · per cent., were lost.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
148	320	71	21	3	9	22	36	51	10	166	27	884

The Total Number of Lives reported as having been lost during the last Ten Years.

1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	Total.	Average.
920	689	1,549	469	521	532	340	1,645	536	884	8,085	808½

Table 26. Number of LIVES SAVED from Shipwreck on the Coasts of the United Kingdom during the Years 1856, 1857, 1858, 1859, 1860, and 1861, distinguishing the MEANS by which they were saved.

By what means saved.	January.						February.						March.						April.						May.					
	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861
By life boats	43	182	8	26	42	44	8	6	25	6	60	532	22	132	18	38	7	32	12	18	28	23	18	6	–	14	–	–	19	–
By rocket and mortar apparatus and assistance with ropes, &c. from shore	19	149	35	2	74	37	24	–	24	–	24	151	17	61	30	35	19	29	36	8	27	34	14	4	–	2	11	–	29	–
By luggers, Coast Guard boats, and small craft	57	94	55	55	103	11	79	162	39	27	55	109	27	44	112	36	16	45	46	18	259	23	62	1	687	8	24	12	84	–
By ships and steam boats	118	26	17	44	170	114	44	14	32	144	44	166	19	37	21	92	23	87	3	53	46	52	27	29	15	20	–	5	73	19
By ships own boats	–	–	–	–	283	221	–	–	–	–	261	336	–	–	–	–	145	100	–	–	–	–	101	29	–	–	–	–	83	136
By individual exertion	–	6	–	–	–	1	12	–	8	–	–	4	–	–	–	–	–	3	–	–	7	5	–	–	1	–	–	–	7	–
By other means	–	–	–	–	–	48	–	–	–	–	–	148	–	–	–	–	–	156	–	–	–	–	–	10	–	–	–	–	–	–
TOTAL	237	457	115	127	672	476	167	182	128	177	444	1446	85	274	181	201	210	452	97	97	367	137	222	79	703	44	35	17	295	155

(*Continued.*)

By what means saved.	June.						July.						August.						September.					
	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861
By life boats	–	5	–	–	23	–	8	–	7	–	–	12	–	–	13	7	2	–	18	2	15	22	22	19
By rocket and mortar apparatus and assistance with ropes, &c. from shore	4	1	–	–	58	4	4	4	–	–	–	–	–	–	–	–	16	–	61	–	5	27	18	7
By luggers, Coast Guard boats, and small craft	16	8	16	511	16	2	13	20	9	7	1	–	30	6	18	20	29	5	81	23	18	22	73	9
By ships and steam boats	–	229	–	7	10	21	–	–	8	14	4	10	1	29	31	21	49	31	128	–	9	43	76	101
By ships own boats	–	–	–	–	78	83	–	–	–	–	33	58	–	–	–	–	50	69	–	–	–	–	67	100
By individual exertion	–	–	–	–	1	–	–	–	2	–	–	–	–	–	–	–	–	–	8	–	9	–	–	–
By other means	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	14	–	–	–	–	–	17
TOTAL	20	243	16	518	186	110	25	24	26	21	38	83	31	35	62	48	146	119	296	25	56	114	256	253

(*Continued.*)

By what means saved.	October.						November.						December.						TOTAL.					
	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861	1856	1857	1858	1859	1860	1861
By life boats	–	8	16	36	26	–	219	31	35	79	44	87	32	–	41	54	63	11	362	398	206	291	326	743
By rocket and mortar apparatus and assistance with ropes, &c. from shore	15	12	35	123	55	6	34	3	40	32	62	173	48	3	3	7	39	36	262	243	210	260	408	447
By luggers, Coast Guard boats, and small craft	59	70	74	106	58	5	48	43	57	128	89	81	41	16	38	62	49	30	1,184	512	719	1,009	635	298
By ships and steam boats	27	25	63	146	101	75	35	11	95	129	107	221	17	63	72	69	85	97	407	507	394	766	769	971
By ships own boats	–	–	–	–	138	101	–	–	–	–	197	201	–	–	–	–	109	126	–	–	–	–	1,545	1,560
By individual exertion	–	–	–	1	5	–	–	–	–	–	–	9	7	2	–	–	1	11	28	8	26	6	14	28
By other means	–	–	–	–	–	17	–	–	–	–	–	115	–	–	–	–	–	49	–	–	–	–	–	577
TOTAL	101	115	188	412	383	204	336	88	227	368	499	887	145	84	154	192	346	360	2,243	1,668	1,555	2,332	3,697	4,624

Table 27. List of LIFE BOATS on the Coasts of the United Kingdom distinguishing the PLACE where each Boat is stationed, and the Persons, Committees, &c., having the MANAGEMENT thereof; geographically arranged.

County in which situate.	Name of Station.	No. of Boats.	Management.
	GREAT BRITAIN.		
Caithness	Thurso	1	National Life Boat Institution.
	Wick	1	British Fisheries.
Elgin	Lossiemouth	1	National Life Boat Institution.
Banff	Buckie	1	Do.
	Banff	1	Do.
Aberdeen	Fraserburgh	1	Do.
	Aberdeen	2	Harbour Commissioners.
Kincardine	Stonehaven	1	Provost and Council.
Forfar	Montrose	1	Harbour Commissioners.
	Arbroath	1	Do.
	Buddoness	1	National Life Boat Institution.
	Broughty Ferry	1	Do.
Fife	St. Andrews	1	Do.
Haddington	North Berwick	1	Do.
Berwick	Berwick	1	Do.
Durham	Holy Island	1	Trinity House, Newcastle.
Northumberland.	N. Sunderland	1	National Life Boat Institution.
	Boulmer	1	Do.
	Alnmouth	1	Do.
	Hauxley	1	Do.
	Newbiggin	1	Do.
	Blyth	2	Harbour Commissioners.
	Cullercoats	1	National Life Boat Institution.
	Shields	3	Harbour Commissioners.
	Tynemouth	1	National Life Boat Institution.
Durham	Whitburn	1	Do.
	Sunderland	4	Harbour Trustees.
	Ditto	2	Seamen.
	Seaham	1	Seamen.
	Hartlepool	4	Harbour Commissioners and Seamen, but subsidized by Board of Trade.
	Hartlepool, E.	1	Harbour Commissioners.
	Seaton Carew	1	National Life Boat Institution.
York	Middlesboro'	1	Do.
	Redcar	1	Do.
	Saltburn	1	Do.
	Whitby	1	Do.
	Robin Hood's Bay.	1	Local Subscribers and Whitby Commissioners.
	Scarborough	1	Local Committee.
	Do.	1	National Life Boat Institution.
	Filey	1	Do.
	Bridlington	1	Do.
	Hornsea	1	Do.
	Spurn Point	1	Hull Trinity House.
Lincoln	Donna Nook	1	Lincolnshire Association.
	Theddlethorpe	1	Do.
	Sutton	1	Do.
	Skegness	1	Do.
Norfolk	Blakeney	1	National Life Boat Institution.
	Sheringham	1	Hon. Mrs. Upcher.
	Cromer	1	National Life Boat Institution.
	Mundesley	1	Do.
	Bacton	1	Do.
	Palling	1	Do.
	Winterton	1	Do.
	Scratby	1	Boatmen.
	Caistor	1	National Life Boat Institution.
	Yarmouth	2	Do.
Suffolk	Gorleston	2	Boatmen.
	Lowestoft	1	National Life Boat Institution.
	Pakefield	1	Do.
	Kessingland	1	Boatmen.
	Southwold	1	National Life Boat Institution.
	Thorpness	2	Do.
	Aldborough	1	Do.
Kent	Margate	1	Boatmen.
	Do.	1	National Life Boat Institution.
	Kingsgate	1	Do.
	Broadstairs	2	Boatmen.
	Ramsgate	3	Harbour Commissioners.
	Walmer	1	National Life Boat Institution.
	Dover	1	Do.
	Dungeness	1	Do.
Sussex	Camber	1	Do.
	Rye	1	Do.
	Hastings	1	Do.
	Eastbourne	1	Do.
	Newhaven	1	Do.
	Brighton	1	Do.
	Do.	2	Private.
	Shoreham	1	Harbour Commissioners.
	Worthing	1	Local Committee.
	Selsey	1	National Life Boat Institution.
Hants	Grange	1	Do.
	Brooke	1	Do.
Dorset	Lyme Regis	1	Do.
Devon, South	Exmouth	1	Do.
	Teignmouth	1	Do.
	Plymouth	1	Do.
Cornwall	Polkerris	1	Do.
	Lizard	1	Do.
	Penzance	1	Do.
	Sennen Cove	1	Do.
	St. Ives	1	Do.
	Newquay	1	Do.
	Padstow	1	Do.
	Bude Haven	1	Do.
Devon, North	Appledore	1	Do.
	Braunton Sands	1	Do.
	Ilfracombe	1	Local Committee.
Somerset	Burnham	1	Corporation of Bridgewater.
Glamorgan	Penarth	1	National Life Boat Institution.
	Porthcawl	1	Do.
	Swansea	1	Harbour Trustees.
Carmarthen	Llanelly	1	National Life Boat Institution.
	Carmarthen Bay.	1	Do.
Pembroke	Tenby	1	Do.
	Fishguard	1	Do.
	St. Dogmaels	1	Do.
Cardigan	Aberystwith	1	Do.
Merioneth	Aberdovey	1	Do.
	Barmouth	1	Do.
Caernarvon	Port Madoc	1	Do.
	Caernarvon	1	Do.

Table 27.—*continued.*

County in which situate.	Name of Station.	No. of Boats.	Management.
	GREAT BRITAIN—*continued.*		
Anglesea -	Llandwdyn -	1	National Life Boat Institution.
	Rhoscolyn -	1	Do.
	Holyhead -	1	Do.
	Cemlyn -	1	Do.
	Moelfre -	1	Do.
	Penmon -	1	Do.
Carnarvon -	Orme's Head -	1	Do.
Flint -	Rhyl - -	1	Do.
Lancashire -	Liverpool -	7	Dock Trustees.
	Southport -	1	National Life Boat Institution.
	Lytham -	1	Do.
	Fleetwood -	1	Do.
Cumberland	Whitehaven -	1	Harbour Trustees.
	Silloth - -	1	National Life Boat Institution.
Kirkcudbright.	Kirkcudbright	1	Do.
Ayr - -	Ayr - -	1	Do.
	Irvine - -	1	Do.
	Ardrossan -	1	Harbour Commissioners, but subsidized by Board of Trade.
Argyle -	Campbelton -	1	National Life Boat Institution.
Isle of Man	Castletown -	1	Do.
	IRELAND.		
Antrim -	Portrush -	1	National Life Boat Institution.
Down -	Groomsport -	1	Do.
	Tyrella - -	1	Do.
	Newcastle -	1	Do.
Louth -	Dundalk -	1	Do.
	Drogheda -	1	Do.
Dublin -	Skerries - -	1	Do.
	Howth - -	1	Do.
	Poolbeg - -	1	Dublin Ballast Board.
	Kingstown -	1	National Life Boat Institution.
Wicklow -	Wicklow -	1	Do.
	Arklow -	1	Do.
Wexford -	Cahore - -	1	Do.
	Rosslare Point	2	Do.
	Carnsore -	1	Do.
Waterford -	Tramore -	1	Do.
	Dungarvan -	1	Do.
	Ardmore -	1	Do.
Cork -	Youghal -	1	Do.
	Ballycotton -	1	Do.
Mayo -	Westport -	1	Do.

	1855.	1856.	1857.	1858.	1859.	1860.	1861.
Life Boats - -	127	124	141	149	158	173	179

Number of Boats under the management of the National Life Boat Institution, 106 of which are subsidized by the Board of Trade - - - - - - - - 120
Number of Boats under other management, 5 of which are subsidized by the Board of Trade - 59
Total - - - - 179

Table 28. List of Stations of the ROCKET AND MORTAR APPARATUS on the Coasts of the United Kingdom belonging to the Board of Trade, and in the Charge and Management of the Coast Guard.

County.	Station.	Description of Apparatus.
GREAT BRITAIN.		
Caithness	Scrabster	Rocket.
	Wick	Do.
Banff	Buckie	Mortar.
	Portsoy	Do.
	Banff	Do.
	Gardenstown	Rocket.
Aberdeen	Fraserburgh	Rocket and Mortar.
	Peterhead	Do.
	Colliestown	Mortar.
	Bridge of Don	Rocket and Mortar.
	Aberdeen—	
	N. side of Harbour	Do.
	S. side of Harbour	Do.
	Midway between Harbour and River Don	Do.
Kincardine	Cove Bay	Mortar.
	Stonehaven	Do.
	Johnshaven	Rocket.
Forfar	Montrose	Mortar.
	Uzon	Rocket.
	Arbroath	Mortar.
	Westhaven	Rocket
Fife	Elie	Mortar.
Haddington	North Berwick	Rocket.
	Dunbar	Mortar.
Berwick	Redheugh	Rocket.
	Eyemouth	Do.
	Burnmouth	Do.
	Berwick	Mortar.
	Spittal	Rocket.
Durham	Holy Island	Mortar.
	Old Law	Rocket.
Northumberland	Newton	Mortar.
	Craster	Rocket.
	Boulmer	Do.
	Alnmouth	Do.
	Amble	Do.
	Newbiggin	Do.
	Blyth	Rocket and Mortar.
	Seaton Sluice	Rocket.
	Cullercoats	Rocket and Mortar.
	Tynemouth	Do. Do.
	Shields	Do. Do.
Durham	Whitburn	Rocket.
	Marsden	Do.
	Sunderland, S. Pier	Do.
	,, N. Pier	Do.
	,, Sea Outlet	Do.
	,, Watchhouse	Rocket and Mortar.
	Seaham	Rocket.
	Hawthorn Hive	Do.
	Blackhalls	Do.
	Hartlepool	Mortar and Rocket.
	Seaton Carew	Rocket.
Yorkshire	Coatham	Rocket.
	Skinningrove	Do.
	Saltburn	Do.
	Staithes	Do.
	Kettleness	Do.
	Sandsend	Do.
	Whitby	Rocket and Mortar.
	Robin Hood's Bay	Do. Do.
	Burniston	Rocket.
	Scarborough	Rocket and Mortar.
	Cayton	Rocket.
	Filey	Rocket and Mortar.
	Flambro' Head	Do. Do.
GREAT BRITAIN—*continued.*		
Yorkshire—*cont.*	Bridlington	Rocket and Mortar.
	Ulrome	Do. Do.
	Hornsea	Do. Do.
	Mappleton	Rocket.
	Aldborough	Do.
	Sandlemere	Rocket and Mortar.
	Holmpton	Rocket.
	Easington	Do.
Lincoln	Saltfleet	Mortar.
	Theddlethorpe	Do.
	Huttoft	Do.
	Chapel	Do.
	Skegness	Do.
Norfolk	Weybourne	Rocket and Mortar.
	Sherringham	Do. Do.
	Cromer	Do. Do.
	Side-Strand	Rocket.
	Mundesley	Rocket and Mortar.
	Bacton	Do. Do.
	Hasboro'	Do. Do.
	Palling	Do. Do.
	Winterton	Do. Do.
	Caistor	Do. Do.
	Great Yarmouth	Do Do.
Suffolk	Gorleston	Mortar.
	Corton	Rocket and Mortar.
	Lowestoft	Do. Do.
	Kessingland	Do. Do.
	Southwold	Do. Do.
	Misner Haven	Rocket.
	Sizewell Gap	Mortar.
	Thorpness	Rocket.
	Aldborough	Mortar.
	Orfordness	Rocket.
	Orford Haven	Mortar.
	Landguard Fort	Do.
Kent	Kingsgate	Rocket.
	Ramsgate	Mortar.
	St. Margaret's Bay	Rocket.
	Casemates	Mortar.
	Pelter Brig	Rocket.
	24 Tower	Mortar.
	Littlestone	Rocket.
	Dungeness	Do.
	Lydd	Do.
Sussex	Jury's Gap	Rocket.
	Camber	Do.
	31 Tower	Do.
	Hastings	Do.
	39 Tower	Mortar.
	Eastbourne	Rocket.
	Birling Gap	Mortar.
	Blatchington	Do.
	Greenway	Do.
	Brighton	Rocket.
	Shoreham	Do.
Hants	Cowes	Mortar.
	Ventnor	Rocket.
	Reeth	Do.
	St. Catherine's Point	Do.
	Atherfield	Do.
	Brixton	Do.
	Brooke	Do.
	Barton Cliff	Do.
	Tuckton	Do.
Dorset	Swanage	Rocket.
	St. Alban's Head	Do.
	Kimmeridge	Do.
	Abbotsbury	Do.
	Burton	Mortar.
	Bridport	Do.
	Lyme	Do.

Table 28—*continued.*

County.	Station.	Description of Apparatus.
GREAT BRITAIN—*continued.*		
Devon, South	Axmouth	Rocket.
	Sidmouth	Mortar.
	Teignmouth	Do.
	Paignton	Do.
	Torcross	Do.
	Rickham	Rocket.
	Challabro	Do.
	Port Wrinkle	Do
Cornwall	St. George's Cove	Rocket.
	Polruan	Do.
	Fowey	Do.
	Mullion	Do.
	Prussia Cove	Do.
	Penzance	Mortar.
	Mousehole	Rocket.
	Sennen Cove	Do.
	St. Mary's, Scilly	Do.
	Pendeen Cove	Do.
	St. Ives	Do.
	Portreath	Mortar.
	St. Agnes	Rocket.
	Mawgan Porth	Do.
	Newquay	Do.
	Padstow Watch-house	Do.
	Harbour Cove	Mortar.
	Trevose Head	Rocket.
	St. Trebeatherick	Mortar.
	Port Isaac	Do.
	Boscastle	Rocket.
	Budehaven	Do.
Devon, North	Clovelly	Mortar.
	Appledore	Rocket.
	Braunton Sands	Mortar.
	Morthoe	Rocket.
	Ilfracombe	Mortar.
	Lynmouth	Do.
Glamorgan	Penarth	Rocket.
	Barry Island	Mortar.
	Porthcawl	Rocket.
	Neath	Mortar.
	Mumbles	Rocket.
	Oxwich	Do.
Carmarthen	Burry Port	Mortar.
Pembroke	Tenby	Rocket.
	Castle Tank	Mortar.
	Angle	Do.
	St. David's	Do.
	Goodwich	Rocket.
	St. Dogmaels	Mortar.
Anglesea	Holyhead	Mortar.
	Amlwch	Rocket.
Lancashire	Blackpool	Rocket.
	Piel	Do.
GREAT BRITAIN—*continued.*		
Cumberland	Whitehaven	Rocket & Mortar.
	Maryport	Rocket.
Wigtown	Port Logan	Rocket.
	Port Patrick	Mortar.
IRELAND.		
Down	Groomsport	Mortar.
	Roddens	Do.
	Annalong	Rocket.
Louth	Clogher	Rocket.
Dublin	Balbriggan	Rocket.
	Skerries	Do.
	Portrane	Do.
	Malahide	Do.
	Howth	Do.
	Kingstown	Mortar.
Wicklow	Greystones	Rocket.
	Wicklow	Do.
	Arklow	Do.
Wexford	Courtown	Rocket.
	Cahore	Do.
	Morris Castle	Do.
	Curracloe	Do.
	Rosslare	Do.
	Carnsore	Do.
	Kilmore	Do.
	Bar of Lough	Do.
	Fethard	Do.
Waterford	Ballymacaw	Mortar.
	Bonmahon	Do.
	Ardmore	Rocket.
Cork	Youghal	Rocket.
	Ballycotton	Do.
	Poor Head	Do.
	Robert's Cove	Do.
	Oyster Haven	Do.
	Old Head of Kinsale	Do.
	Courtmacsherry	Do.
	Barry Cove	Do.
	Dunny Cove	Do.
	Milk Cove	Do.
	Castletownsend	Do.
	Baltimore	Do.
	Crookhaven	Do.
Kerry	Knightstown	Rocket.
	Dingle	Do.
Donegal	Rutland	Do.

Number of Stations.	1857.	1858.	1859.	1860.	1861.
In England and Wales	141	157	157	166	169
In Ireland	34	37	37	41	41
In Scotland	23	22	22	26	25
Total	**198**	**216**	**216**	**233**	**235**

Table 29. LIST of STATIONS on the Coasts of the United Kingdom to which LIFE BELTS have been supplied.

County.	Station.	Belts.	Lines.
GREAT BRITAIN.			
Banff	Portsoy	2	2
Aberdeen	Rattray	5	5
Kincardine	Johnshaven	2	2
Forfar	Redcastle	2	2
	Westhaven	2	2
Fife	Elie	5	5
Haddington	Dunbar	5	5
Berwick	Redheugh	2	2
Northumberland	Newton	5	5
	Craster	5	5
Yorkshire	Staithes	5	5
	Flambro' Head	5	5
	Sandlemere	5	5
Lincoln	Donna Nook	2	2
Norfolk	Burnham	5	5
Suffolk	Misner Haven	5	5
	Sizewell Gap	2	2
	Orfordness	5	5
	Orford Haven	2	2
	Woodbridge Haven	5	5
Essex	Walton Gap	2	2
	Clacton Wash	2	2
Kent	Whitstable	5	5
	St. Nicholas	5	5
	King-gate	5	5
	St. Margaret's Bay	5	5
	Dungeness	5	5
Sussex	Galley Hill	4	4
Cornwall	St. Mary's, Scilly	5	5
	St. Agnes	5	5
	Port Isaac	5	5
	Boscastle	5	5
IRELAND.			
Down	Orlock	—	2
	Donaghadee	—	2
	Millisle	—	2
	Roddens	7	2
	Cloghy	6	5
	Tara	2	2
	Gunn's Island	2	2
	Ardglass	2	2
	Annalong	2	2
	Leestones	2	2
Louth	Cooley Point	2	2
	Dunany Point	2	2
	Clogher Head	2	2
Meath	Nanny Water	2	2
Dublin	Baldoyle	5	5
Wicklow	Five Mile Point	2	2
	Jack's Hole	2	2
Wexford	Kilmichael	2	2
	Ballymoney	2	2
	Courtown	2	2
	Morris Castle	6	6
	Curracloe	6	6
	Ballygeary	2	2
	Kilmore	2	2
	Fethard	2	2
Cork	Knockadoon	2	2
	Ballycroneen	2	2
	Poorhead	2	2
	Robertscove	2	2
Galway	Barna	5	5

Number of LIFE BELTS and LIFE BELT STATIONS.

	Stations.	Belts and Lines.
In England and Wales	25	106
In Ireland	30	77
In Scotland	7	23
Total	62	206

Table 30. Sums paid out of the MERCANTILE MARINE FUND TOWARDS SAVING LIFE FROM SHIPWRECK, distinguishing Payments to Crews of LIFE BOATS, and Rewards and Gratuities to FISHERMEN and others, and Sums paid for the Maintenance of the MORTAR AND ROCKET APPARATUS.

By the 459th section of the "Merchant Shipping Act, 1854," Salvage for Life is paid in priority to all other claims for Salvage, and the Board of Trade is empowered to grant remuneration out of the Mercantile Marine Fund to persons saving Life where such Salvage is insufficient; and by the 418th section of that Act the Board of Trade is also empowered to grant sums for establishing and maintaining Life Boats, with the necessary crews and equipments, on the coasts of the United Kingdom; under the sections quoted, the following sums have been granted during the past year, and paid in part direct by the Board of Trade, and partly through the medium of the Royal National Life Boat Institution, as distinguished below.

Month in which Payment made.	Payments to Crews of Life Boats for Exercise, and Coxswains' salary.		Payments to Crews of Life Boats for Services at Wrecks.		Rewards and Gratuities to Fishermen and others.		Payments for providing and maintaining Rocket and Mortar Apparatus.	Total Payments.
	By Board of Trade direct.	By Board of Trade through National Life Boat Institution.	By Board of Trade direct.	By Board of Trade through National Life Boat Institution.	By Board of Trade. direct.	By Board of Trade through National Life Boat Institution.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
January - -	58 0 0	405 0 0	17 0 0	355 16 10	45 7 6	—	49 15 6	930 19 10
February - -	—	—	—	—	220 0 0	—	191 9 0	411 9 0
March - -	—	—	279 0 0	—	199 6 6	—	307 17 1	786 3 7
April - -	135 16 0	418 10 0	—	536 14 6	84 15 0	—	2 12 7	1,178 8 1
May - -	4 17 0	—	—	—	8 15 0	—	305 0 8	318 12 8
June - -	—	—	—	—	20 0 0	—	377 13 9	397 13 9
July - -	21 16 0	477 10 0	—	80 15 0	8 0 0	—	95 1 6	683 2 6
August - -	—	—	—	—	6 0 0	—	21 13 10	27 13 10
September -	—	—	—	—	14 10 0	—	115 12 4	130 2 4
October - -	21 16 0	450 0 0	—	102 16 10	37 2 6	—	493 2 0	1,104 17 4
November -	—	—	—	—	61 0 0	—	227 12 11	288 12 11
December -	—	—	—	—	49 0 0	—	58 15 2	107 15 2
	242 5 0	1,751 0 0	296 0 0	1076 3 2	753 16 6	—	2,246 6 4	6,365 11 0
Total in 1855 -	11 0 0	571 3 8	60 0 0	141 10 6	128 0 0	325 12 6	—	1,237 6 8
Total in 1856 -	29 19 0	744 10 0	—	285 10 8	149 10 0	179 4 3	—	1,388 13 8
Total in 1857 -	45 4 0	802 7 5	13 0 0	188 16 0	137 0 7	254 15 0	2,751 15 11	4,192 18 11
Total in 1858 -	40 15 0	1,113 11 11	6 10 0	319 9 6	311 19 6	71 0 0	2,024 17 7	3,888 3 6
Total in 1859 -	70 16 0	1,309 10 0	8 10 0	686 16 0	377 17 6	—	1,943 7 0	4,396 16 6
Total in 1860 -	105 3 0	1,484 10 0		952 3 3	813 5 6		2.456 15 8	5,811 17 5

Note.—In addition to the total sums paid as above, further sums were paid by the Board of Trade to the National Life Boat nstitution in aid of their funds, as follows :—

	£ s. d.
In 1856 - - - - - - -	961 13 4
In 1857 - - - - - - -	827 15 4
In 1858 - - - - - - -	634 19 8
In 1859, in aid of establishing new Life Boats - -	200 0 0
In 1860 - ditto - - - -	50 0 0
In 1861 - - ditto - - - -	50 0 0
Total - - -	£2,724 8 4

Table 31. List of PERSONS to whom REWARDS have been granted for gallant Services in SAVING LIFE FROM SHIPWRECK, &c., during the Year 1861, Chronologically arranged according to the Dates of Service.

NOTE.—The rewards granted in the case of services rendered at sea and abroad are paid for out of a Parliamentary vote, and where Foreigners are concerned are determined and given by the Foreign Office and the Board of Trade. The rewards given for services rendered on the Coasts of the United Kingdom are paid for out of the Mercantile Marine Fund, and are determined and given by the Board of Trade.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Capitaine A. Vallon of the French Imperial war steamer "Dialmath."	The "Mary," of London, being on the rocks 4 miles from Point Isabella, Capt. Vallon of the "Dialmath" proceeded with his vessel to her assistance. After 3 days exertions it was found impossible to get her off, and she became a wreck. Her cargo, spars, sails, &c., were, however, saved by the exertions of Capt. Vallons.	July 22, 1858 -	A sword - -	Public vote.
Frederick Broom, mate of the Dutch barque "Sophie Elizabeth."	On or about the 31st October 1858, the master and crew (15 persons) of the "Jeannie Johnston" were rescued at sea from their vessel, when she was in a water-logged condition, by a boat from the "Sophie Elizabeth," under the command of the mate. Some risk appears to have been incurred in the performance of this act of humanity, as the boat was injured.	On or about Oct. 31, 1858.	A telescope - -	Public vote.
V. H. Knoll, master of the "Elizabeth," of Stockholm.	When in lat. 34° 57′ S., and long. 27° 22′ E., the "Wolfe" was observed by the "Elizabeth" showing signals of distress, she being in a sinking and disabled state, with pumps choked, the water gaining on her, and the crew exhausted. The "Elizabeth" immediately went to her aid. Two boats were lowered from the "Wolfe," but were crushed against her sides. A large boat was then lowered, and the weather fortunately moderating a little, all on board (32 persons) reached the "Elizabeth," which lay all night near the wreck, and on the following morning saved the effects of the passengers and crew. The "Elizabeth" deviated from her course to land the rescued persons at Algoa Bay, which was effected on the 22d June.	June 18, 1859 -	A telescope - -	Public vote.
Peter Nielson, 2d mate of the steamer "Lady Bird."	This man was one of those who manned the whale boat which assisted the Portland lifeboat in rescuing the survivors of the "Admella" S.S., wrecked on a reef 19 miles N.W. of Cape Northumberland, in August 1859. His name was accidentally omitted in the lists furnished. He, like the men with him, Kean, Ward, and others, received rewards from the Melbourne committee. See page 63 of Wreck Return for 1860.	Aug. 8 to 13, 1859	A bronze medal -	Public vote.
John Le Maitre, mate of the "Queen," of Liverpool. (*James Turner, Master, of the "Queen," was rewarded in* 1860. See *Wreck Return for* 1860, *p.* 64.)	The "Syphax" had lost her rudder in lat. 41° 48′ N., and long. 59° 49′ W., and was in a sinking state, when she fell in with the "Queen." The "Queen's" boat, manned by the mate and 4 men, was despatched to her assistance, and after 4 trips in a heavy sea the whole of the persons on board the "Syphax," consisting, besides her own crew, of part of the crew of the "Rambler," whom she had picked up, were rescued.	Oct. 8, 1859 -	A telescope - -	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
John Burnwood, one of the crew of the "Aldeburgh" life-boat.	On 24th December 1859 a vessel was observed in a most perilous position near the outer shoal at Aldeburgh. The lifeboat was manned and launched, but was capsized by a heavy sea, and 3 of her crew perished. Burnwood was struck on the head and neck by a floating spar, and although apparently but slightly injured at the time, the blow produced a softening of the brain which eventually rendered him unfit for any occupation.	Dec. 24, 1859 -	20*l.* - - -	Mer. Mar. Fund.
George Hubbard, master Joseph Barrell - - John Fisher - - William Prentin - - William Bell - - Benjamin Bryant, crew of the "Gihon" of Yarmouth.	The "Johannes," of Stettin, whilst off the Norfolk Coast, 28th May 1860, was caught in a hurricane, thrown on her beam ends, and four of her crew and boat washed overboard and lost. At 7 a.m. the next day she was observed by the "Gihon," who, after two attempts, managed to cast off a boat so close as to enable its crew, in spite of the still violent storm, and at considerable risk, to board the barque, and rescue the six persons remaining of the crew, who were afterwards landed at Yarmouth. The salvage of life in this case was the only object of the crew of the "Gihon."	May 29, 1860 - - - - - - - - - - - - -	5*l.* - - - 3*l.* and a bronze medal to each.	Mer. Mar. Fund.
Gordon Murison, master of the "Flibberty," of Cape Town.	The "Borderer," of London, sprang a leak in lat. 25° 02′ S., and long. 51° 33′ E. The "Flibberty" being signalled ran down, and lay by her until the following morning. The leak increasing very much, and her crew being exhausted with pumping, the ship was abandoned, and the crew, 15 persons, were received on board the Flibberty."	July 9, 1860 -	A gold watch -	Public vote.
William Sabiston, master of the "Summer Cloud."	The "Conway," of Liverpool, with troops, and the wives and children of soldiers serving, was dismasted, lost all her boats, and took in much water, during a severe gale on 8th September, and was also so seriously injured in hull and unmanageable as to induce the master to avail himself of the assistance offered by the master of the "Summer Cloud," which vessel had laid by during the night. The whole of the crew and passengers, 416 in number, were taken from the "Conway" by the "Summer Cloud's" boats, and were conveyed by that vessel to the Island of Madeira, and there landed. The conduct of the master of the "Summer Cloud" in the performance of this arduous service was most praiseworthy.	Sept. 9, 1860 -	A gold chronometer 50*l.* to cover expenses.	Public vote.
A. Jorgensen, master of the Norwegian schooner "Rapid," of Brevig. Owners of vessel - -	The "Conquering Hero," of South Shields, being completely disabled, the crew being worn out with pumping and lashed to the rigging, was on the 6th October 1860, when in lat. 55° 45′ N., long. 3° 47′ E., fallen in with by the "Rapid," which hove to, and after incurring some risk succeeded in rescuing the crew, who were treated with great kindness for 4 days. They were landed at Tonsberg, in consequence of the "Rapid's" provisions falling short.	Oct. 6, 1860 - - -	A telescope - 3*l.* 2*s.* for subsistence.	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Harm Cassens, ship master of Norderney.	The "Jameson" was wrecked on the Norderney Sand, near Marienhohe. The sea being very rough, and making a clear breach over the vessel, the master and crew were compelled to get into the top, from which, after 12 hours' exposure, they were rescued by Captain Harm Cassens and his crew of 4 men, after several attempts, and at great risk of life. Attempts were also made from 5 A.M. till 2 P.M. by 19 sloops, under the direction of (Vogt.) Hasse. The other persons mentioned in the margin displayed great activity on the occasion.	Oct. 6, 1860 -	4*l.* - - -	Public vote.
Cassen Harms - -		- - -	2*l.* to each - -	
Jacob Remmers - -		- - -		
Willm. Schiemann - -		- - -		
Gerd Bents - -		- - -		
All fishermen.				
(Vogt.) Hasse - -		- -	The thanks of Her Majesty's Government.	
Magistrate.				
Christian Rass - -		- - -		
Ship Captain.				
Ehe H. Rass and Kruse -		- - -		
Innkeepers.				
Ehme L. Rass -		- - -		
Baker.				
All of Norderney Albrecht Altinanns, of Juist.				
C. S. Jensen, master, and the crew of the Norwegian galliot "Johan Wilhelm," of Kragero.	On the 3d October 1860 the "Jane," of Wick, was overtaken in a hurricane when 25 miles off St. Abbs Head, and became water-logged, lost sails, &c. After driving about for 8 days in this condition she fell in with the "Johan Wilhelm," whose master sent a boat, rescued the crew, and landed them at Ahrendal in Norway.	Oct. 11, 1860 -	5*l.* to be divided -	Mer. Mar. Fund.
Benjamin Turrell, master, and the crew (5 persons) of the smack "Alpha," of Yarmouth.	The "Hannah" of Stralsund struck upon the Winterton Ridge, and went on her beam ends. Some smacks came to render aid, but it blew so severe a gale that it was found necessary to abandon the vessel. Her crew were received on board the "Alpha," and landed at Yarmouth.	Oct. 15, 1860 -	1*l.* each - -	Mer. Mar. Fund.
Gustaf M. Gronberg -	During the night of the 19th October 1860, the "James Pratt" was wrecked 30 miles east of Helsingfors, and her master washed on a rock, from whence he was taken in a senseless state (after many attempts) by Gustaf M. Gronberg and some Finnish seamen. The night was so tempestuous and the sea so high that no boat could approach the wreck, and the crew of 5 persons had to remain for 30 hours in the tops, before they could be rescued, which was eventually done by another boat's crew of Finnish seamen.	Oct. 19, 1860 -	A silver medal -	Public vote.
13 Finnish seamen			1*l.* 10*s.* each -	
The Christian Esquimaux of Okak Bay.	The "Kitty" sailed from London on 25th June 1859 with merchandise for York Factory. On 12th August she entered Hudson's Straits, and sustained so much damage that on the 6th September the crew were obliged to abandon her, the master and 10 men taking to the long boat, the mate and 4 seamen to the smaller one. During a violent snow-storm the long boat was lost sight of, and never seen again. After 63 days exposed to severe hardships and most imminent dangers, the men in the smaller boat neared Anietok, and fell in with some Christian Esquimaux from Okak Bay, who treated them well, and handed them over to the Missionaries of the Church of the United Brethren on the coast of Labrador, by whom they were subsisted, restored to health, and despatched to this country as opportunities offered.	Nov. 8, 1860 -	20*l.* to be expended by the Missionaries of the Church of the United Brethren in fur suits for the Esquimaux.	Public vote.
The Missionaries, for subsistence of the rescued persons.		- -	96*l.* 0*s.* 9*d.*	

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
C. H. Schmidt, master of the Danish schooner "Haabet," of Copenhagen.	On 14th Nov. 1860 the "Michele" of Malta, when in a waterlogged condition off the south-west coast of Ireland, was fallen in with by the "Haabet." After laying by the "Michele" for three hours, the crew (11 persons) of that vessel, succeeded in launching the long boat, and escaped to the "Haabet," on board of which vessel they were received, kindly treated, and landed on 28th November at Leghorn, for which services the master refused all compensation.	Nov. 11, 1860 -	A gold watch -	Public vote.
Seth Crowell, master -	The "Verbena," whilst laying to in a terrific gale, received such injuries that she began to make water rapidly. The "Robin Hood," also lying by, on observing her signals of distress, immediately lowered a boat, but found it impossible to rescue the crew at that time. She, however, lay by her all night, burning extra lights, and in the morning, the force of the sea having somewhat abated, succeeded in launching a boat, and in two or three trips rescued all on board (9 in number), and subsisted and treated them with great kindness for 8 days.	Nov. 26, 1860 -	A telescope - -	Public vote.
Francis Webb, 2d mate -		- - -	2*l.*	
And two seamen of the American ship "Robin Hood."		- - -	1*l.* 10*s.* each.	
Owners of ditto - -		- - -	10*l.* paid for subsistence and clothing supplied to the "Verbena's" crew.	
M. Pacadaif - -	The "Marmion," of London, was wrecked in the Bay of Obsoskнah, and part of the crew were saved by these five men dragging a boat over the ice, which in some places was very rotten.	Dec. 9, 1860 -	1*l.* each - -	Public vote.
B. Condraska - -		- - -		
M. Kalesinco - -		- - -		
Y. Koniko - -		- - -		
Y. Pacadaif - -		- - -		
Sakaroff Pacadaif, foreman of the estate of Count Tolstoy.	On 27th December Sakaroff Pacadaif proceeded with a boat on a sledge for 15 versts, and after three immersions succeeded in saving H. Neale and Edward Walch, two seamen who had been on the ice in an exposed state and without food for three days, and were in a very exhausted state. Mr. Vasili Hulm rendered the greatest assistance both by his advice and influence during the whole time the "Marmion's" cargo was being salved, and finally followed the longboat several miles, and sent the boat by Sakaroff Pacadaif by which the lives of the aforesaid two seamen were saved.	- - -	Silver medal and 5*l.*	Public vote.
Vasili Holm, superintendent of the estate of Count Tolstoy.		- - -	A silver medal.	
Frederich August Schimmelfennig, master.	The "Henriette Dorn" on a voyage from London to Galatz, fell in with the brig "Bristol," of Falmouth, in a sinking state. On nearing her the mate and 5 seamen of the brig got into a boat, and were taken on board the schooner by means of a life buoy thrown to their aid by the latter vessel. The mate and a seaman of the schooner then manned one of her boats, and proceeded to the brig, to rescue the master and 2 seamen, which they succeeded in doing, and after 12 days the whole of the "Bristol's" crew were landed at Gibraltar.	Dec. 9, 1860 -	A telescope - -	Public vote.
A. H. Krueger, mate -		- - -	2*l.*	
Johann Grunberg, seaman of the Prussian schooner "Henriette Dorn."		- - -	1*l.*	
Owners of ditto - -		- - -	26*l.* 7*s.* for subsistence.	
J. A. Bohtel, master -	The "Canton," of Hull, whilst on a voyage from St. John's, N.B., to Hull, was dismasted. Her crew (14 persons) were taken off by two boats from the "Gutenberg," which deviated from her course to render assistance. They were treated with great kindness, and at their request landed at Dover, after being on board 23 days. On leaving Dover to resume her voyage the "Gutenberg" was carried so much out of her course by the set of the tide that she could not clear the Goodwin Sands, and striking on the South Sand Head was totally lost, with her master, some passengers, and the greater part of her crew.	Dec. 10, 1860 -	30*l.* to his widow -	Public vote.
Carl Kriger, cook -		- - -	5*l.* to each of their widows.	
Carl Woldman - -		- - -		
August Classen - -		- - -		
Henry Sikman - -		- - -		
And two others - - Seamen of the ship "Gutenberg," of Hamburgh.		- - -		
Owners of ditto - -		- - -	21*l.* 10*s.* for subsistence.	

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Ephraim Lockhart, master A. Beckwith, mate - W. Robertson, 2d mate - Albert Allen - - Peter Peterson - - James Sanford - - Geo. Wilson - - James Thomson - - William Nelson - - James Sanfort - - Seamen of the U. S. Barque "J. E. Lockhart."	Rescuing the crew of the "Rose," of Quebec, during a heavy gale in lat. 43° 30′ long. 43°, 2 days after she had sprung a leak. When sighted by the "J.E.Lockhart" she had 9½ feet of water in her hold, and was in the utmost danger of sinking, the water fast gaining on her, while her crew had become quite exhausted. The 2 boats sent to the rescue were much injured.	Dec. 13, 1860 -	A gold chronometer, value 50*l.* *3l.* each. *2l.* each.	Public vote.
J. Neilson, master of the Norwegian barque "Queen Victoria."	The "Mary Weir, of London, from New York, sprung a leak, was dismasted, and became waterlogged and unmanageable during a hurricane which occurred on the 9th Dec. She was fallen in with by the "Queen Victoria," whose master bravely rescued her crew during a violent gale, and subsisted, and landed them at New York on the 19th Jan. 1861, and for which services he refused all compensation.	Dec. 13, 1860 -	Gold chronometer.	Public vote.
Joseph Southard, master - J. E. Woodworth, 2nd mate Peter Wilson - - Adam Wright - - Joseph Tryall - - Thomas Bujan - - Seamen of the "Flora Southard," of U.S.	The "Quickstep," of London, from Trinidad became waterlogged and greatly damaged in heavy gales, besides losing 4 of her crew. She was fallen in with by the "Flora Southard," whose master manned a boat with the 2d mate and 4 men, by whom the survivors were rescued, under circumstances of great peril and difficulty. The master of the "Flora Southard" subsisted the 4 survivors 30 days, and landed them at New York, for which service he refused all compensation.	Dec. 20, 1860 -	A sextant - - 10 $. 6 $ each.	Public vote.
William Stewart, commissioned boatman. William Corbert - - Michael Foley - - Fishermen. Michael Cleary - - Labourer. James Cunniff - - Hugh Kinn, baker - - Michael Keating, carpenter. Mr. John Roderick - Rev. Patrick Wall -	The "Diana," of Frederickshaven, grounded on a reef about ¼ of a mile N.N.E. of the Coast Guard Station at Ardmore. As the flood tide was making, the distance was too great for the rocket apparatus to be useful. The lifeboat was then launched, and several unsuccessful attempts were made to reach the wreck. The "Diana's" crew then veered a line ashore by means of their skiff, which, together with the warp belonging to the rocket apparatus, was made fast to the lifeboat, and the latter hauled off to the ship. When the lifeboat had received the "Diana's" crew (with one exception), a heavy sea tore off her stern, and the warp attaching her to the ship was instantly cut, to save the lives of the people on board, and the boat was then safely hauled ashore. The man left on board the vessel attempted to gain the shore upon a piece of timber, but was unable to get through the surf. Stewart and Corbert, hand in hand, then went into the surf, and after a severe struggle, during which Stewart was nearly drowned, the man was rescued. The Rev. P. Wall by his influence induced the men who manned the lifeboat to volunteer for that service.	Dec. 26, 1860 -	A bronze medal and *2l.* each. 10*s.* *5s.* each. A letter of thanks. Ditto.	Mer. Mar. Fund.
Donald McLeod, coastguardsman.	The "John Wesley," of Guernsey, having lost her sails, came ashore close to the land off Brook, Isle of Wight. The master and crew abandoned her in their boat, and went on board a tug. Donald McLeod went down the cliff to render assistance to the crew, being unaware that they were safe, and as he was returning up the cliff was killed by a heavy stone falling on him. He left a widow and 6 children.	Dec. 30, 1860 -	*25l.* presented to his widow.	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
H. A. Bradley, master of the barque "St. Croix," of Jersey. Owners of ditto - -	For rescuing at sea the crew, 20 persons, of the "Riverdale," when she was rolling, both rails under, and landing them at Dartmouth on 17th January.	Dec. 30, 1860 - - - -	A telescope - 41*l.* 4*s.* 2*d.* for subsistence.	Public vote.
Alexander Holway, master of the American vessel "Boston Light." Owners of ditto - -	The "John Lowry," of Greenock, whilst on a voyage from Greenock to Currachee, sprung a leak; every means was adopted to keep her afloat, but without success, and the crew becoming exhausted by their labours she was abandoned at 6 a.m. of 23d Dec. 1860. The crew left her in 2 boats, which separated on the second night, and the one containing the mate and 5 men was picked up on the eighth day after leaving the ship, in lat. 25° 50′ S., long. 78° E., by the "Boston Light," having suffered fearful hardships from the want of water and exposure to the full force of a tropical sun. The master of the "Boston Light" afforded them every comfort their exhausted condition required, and landed them at New York on 14th March.	Dec. 30, 1860 - - - -	A telescope - 33*l.* 6*s.* for subsistence.	Public vote.
Louis Guillon, A. G. Fechamp, part crew of a pilot boat.	On the 1st January the ketch "Jane," of Jersey, was disabled by loss of sails and gear, and driven by a heavy gale near to Courcarnean. Being unable to keep her off, a signal was hoisted for a pilot, who, with 3 men, put off in a boat to her aid. Immediately after the pilot had boarded the ketch a heavy sea swamped his boat. One of the men was saved, the other two, Louis Guillon and A. G. Fechamp, were drowned.	Jan. 1, 1861 -	10*l.* divided between their families.	Public vote.
Cyprian Hall - - J. W. Nelson - - Coast guard commissioned boatmen. John Palmer, coast guard boatman. Henry Catchpole - - William Holmes - - Robert Thompson - George Deal - - Fishermen. 7 labourers for assistance -	The "Elizabeth," of Fowey, parted her anchors on the Barnard sand about noon, and came on to the beach. The boatmen waded through the surf, and after repeated attempts Cyprian Hall succeeded in throwing a line on board, by which a hawser was sent ashore, and the crew safely landed. Some risk was run by the coast guard and fishermen, as the surf was very heavy.	Jan. 1, 1861 -	1*l.* - - - 10*s.* each. 2*s.* 6*d.* each.	Mer. Mar. Fund.
William De Forest Bower, 1st officer. John Campbell - - and John Thompson - - Seamen of the American ship "Bostonian."	The "Aire," of Goole, was struck by a heavy sea, which completely disabled her. One of the crew was washed overboard, and several others injured. The "Bostonian" hove in sight, and, although much distressed by the bad weather she had had, laid by the "Aire," the sea being then too rough to render any assistance. On the gale moderating, a whale boat, manned by the chief mate and 2 seamen of the "Bostonian," who gallantly volunteered for the service, proceeded to the "Aire," and with great difficulty rescued her crew and placed them on board the American vessel, in which they received great kindness.	Jan. 1, 1861 -	A telescope - 2*l.* 10*s.* each.	Public vote.
13 seamen and pilots of Trocquaine.	Rescuing the crew of the "Bostonian," wrecked on the Hanois rocks, together with the crew of the "Aire," of Goole, (previously wrecked and picked up by the "Bostonian",) in all 18 persons, and clothing, feeding, and hospitably treating them. The master o "Bostonian" was drowned.	Jan. 2, 1861 -	5*l.* to be divided among them.	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
John F. French, master of the U.S. ship "Mercury."	The "Idas," of Gloucester, after encountering very stormy weather, sprung a leak, on the 26th Dec. 1860, and the gale increasing in violence until the 3d Jan. she became unmanageable, and the crew worn out by pumping. The "Mercury" came in sight, in long. W. 38° 15′ and lat. N. 43° 13′, received the crew on board, treated them very kindly, and landed them at Havre on the 14th Jan. As the rescued crew helped in working the "Mercury" no charge was made for subsistence.	Jan. 3, 1861 -	Telescope - -	Public vote.
The crews of the Caistor and Scratby lifeboats.	During a thick snow storm and strong wind the "Arethusa," of Blyth, was wrecked on the edge of the Cross Sand. Her crew (8 persons) took to the boat, and ten minutes afterwards the vessel sunk. The Caistor lifeboat picked them up, and landed them at Caistor. The Scratby lifeboat also went to their assistance, but arrived just after the Caistor lifeboat had rescued them. Both lifeboats appear to have run some risk before reaching the "Arethusa."	Jan. 6, 1861 -	1*l.* to each man -	Mer. Mar. Fund.
E. G. Lott, master -	The "Maude," of Montreal was fallen in with, in a sinking condition, by the "Asia," S.S., which sent a boat (manned by the 4th officer and the men named in the margin), during a heavy gale, with a furious sea running, to her assistance. The "Maude's" crew (7 in all) were taken off in safety, well treated, and landed at New York. The master of the "Asia," S.S., had on three previous occasions rescued the crews of sinking vessels.	Jan. 9, 1861 -	A sextant - -	Public vote.
James Mitchell, 4th officer		- - -	A telescope.	
Samuel Maylor - -		- - -		
Frederick Hunter -		- - -		
Joseph Rodgers - -		- - -		
Thomas Selby - -		- - -	1*l.* 10*s.* to each.	
David Rees - - -		- - -		
William Bentley - -		- - -		
James Stevens - -		- - -		
Seamen of the Royal Mail S.S. "Asia."				
Owners of ditto - -		- - -	6*l.* 1*s.* 0*d.* for subsistence.	
Hipolito Vidal, master of the Spanish barque "Obseovador."	The American ship "David Brown" foundered at sea in lat. 22° N., long. 30° W., and the crew and passengers took to the boats, in one of which were the master, 17 of the crew, and 9 English women and children (one of whom subsequently died), who, after 9 days' exposure, during which time they suffered the greatest distress, were fallen in with by the Spanish barque "Obseovador," by which they were rescued, treated with kindness, and landed at Havana, to which port she was bound.	Jan. 14, 1861 -	A telescope - -	Public vote.
Richard Gue, boatman. William Stabbings, commissioned boatman. George How, groom. George Webster, farmer.	The "Theodore," of Dieppe, having sprung a leak off Skinningrove, her crew left her in a small boat, and made for the beach. After passing safely through some of the outside seas, the boat was swamped, and all perished, except the master, who had on a lifebelt, and by seizing hold of a couple of oars managed to keep himself afloat until these 4 men joined hands, proceeded through the surf, and succeeded in rescuing and bringing him ashore in a very exhausted condition.	Jan. 15, 1861 -	10*s.* each - -	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
George Kemp, of Ingoldmells.	The "Cockermouth Castle" was wrecked near the Inner Dowsing, when the master and crew (8 in all) took to the jolly boat, which drifted towards the shore, near Ingoldmells. When amongst the breakers the boat filled and grounded. Kemp, who witnessed it, then ran into the sea, and carried three of the men, who were helpless, to shore, and afterwards carried one, who was unable to walk, to a house.	Jan. 15, 1861 -	10*s.* - -	Mer. Mar. Fund.
Captain J. R. Polter, master of the U.S. ship "Henry Brigham," of Savannah.	On the 14th January 1861, at 9 P.M., the "Mary Carson," when in lat. 44° 30′ N., long. 45° W., on a voyage for Charleston, was	Jan. 16, 1861 -	A telescope -	Public vote.
Owners of ditto - -	discovered to be on fire, the wind at the time blowing strongly. Every endeavour was made to keep the fire under, but at 5.30 P.M. the next day it had made such progress that her crew were obliged to abandon her. The night was bitterly cold, with showers of hail and snow, and with great difficulty the boats were kept from swamping. At 7 A.M. on the 16th the "Henry Brigham" sighted the boats, bore down and rescued the crew (17 persons), treated them kindly, subsisted them 16 days, and landed them at Liverpool.	- - -	20*l.* 16*s.* 0*d.* for subsisteuce.	
Lieutenant A. Offret, commander of the "La Perle," French war steamer.	On the 16th Jan., the French war schooner "La Perle," when near the Cape of Good Hope, encountered a dreadful gale, and on	Jan. 17, 1861 -	A sword - -	Public vote.
M. Bounetard - -		- - -	A handsome revolver to each.	
M. Calvé - - -	the morning of the 17th perceived	- - -		
Non-commissioned Officers	the ship "Alma" dismasted and	- - -		
The 4 men of the crew of the "La Perle" who manned the boat.	making signals of distress. The "La Perle" immediately bore down to her, and succeeded, in	- - -	A silver medal and 50 francs each.	
The remainder of the crew	spite of the tremendous sea then running, in sending a boat to her assistance. Two of the "Alma's" crew had succeeded in reaching the boat, when it was upset, dashed to pieces, and	- - -	25 francs each, to compensate them for the inconvenience sustained by the overcrowding of the "La Perle."	
The French Government -	one of the men was drowned. At 2 P.M., the weather becoming calmer, a boat was lowered, with which 7 of the crew reached the "La Perle." It then returned to the "Alma," manned by the "La Perle's" men, who in 4 trips, at a great risk, rescued the remainder of the persons on board. These men (26 in all) were conveyed to the Mauritius in the "La Perle," which, although bound for Réunion, put in there to land them, and being a small schooner, her crew suffered some inconvenience by so large an addition to their number.	- - -	17*l.* 10*s.* 10*d.* for subsistence.	
Otis Baker, master of the U.S. ship "Thatcher Magoun."	The brig "Corbière" was discovered by the "Thatcher Magoun" to leeward in lat 50° 50′	Jan. 22, 1861 -	A sextant - -	Public vote.
Owners of ditto - -	N., long. 28° 15′ W., dismasted, with 5 or 6 streaks lost, bulwarks all gone, and in a sinking state, the sea breaking over her. The "Thatcher Magoun," ran down to her, and lay by her till the gale had somewhat abated. A boat was then swung off in tackles, lashed to the main and fore yard arms, lowered, and manned by the master of the "Thacher Magoun" and a volunteer crew, who, after considerable risk, succeeded in rescuing the "Corbière's" crew, and afterwards landed them at Boston.	- - -		

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Ali-il-Sal, an Arab seaman	During a most violent gale, the "Orbona," of Berwick, stranded on the coast of Jaffa, and several native seamen swimming to the ship, at great risk, carried a rope from her to the shore, to which a boat was made fast, and by this means the master and 5 sailors were landed. The master was returning in the boat to bring off the remainder of the crew, when it upset, and he would have perished, had not Ali-il-Sal plunged into the sea, and succeeded in bringing him ashore in a senseless state. The rest of the crew were brought on shore by the native seamen, with the aid of ropes. The native seamen participated in the salvage of the ship and cargo for their exertions, but Ali-il-Sal was highly recommended for some further recognition of his gallant conduct.	Jan. 24, 1861 -	Silver medal - -	Public vote.
G. T. Van Ommeven, master of the Dutch brig "Minerva."	During a severe gale, in lat. 43° N., and long. 46° W., the barque "Charles Brownell" became waterlogged and unmanageable, the pumps being choked. The "Minerva" took off the exhausted crew of the barque, 13 in all, landed them at Boston, after treating them with great kindness.	Jan. 24, 1861 -	A Telescope - -	Public vote.
H. Van der Hayden, master. C. A. Hyelmstrom, supercargo of the Belgian brig "De Ruyter." Owners of ditto - -	On 26th January, the crew and passengers, 26 in all, of the "John Owens," of St. John's, N.B., were landed at Bahia, having been taken off their sinking vessel about a fortnight previously by the brig "De Ruyter" when in lat. 26° 25′ S. long., 40° 41′ W. To effect this landing the brig had to deviate 520 miles. Nothing was charged for subsisting the rescued persons, as some provisions were taken from the "John Owens," which assisted to maintain them. The master of the "De Ruyter" was induced by the supercargo to perform this service.	Jan. 24, 1361 - - - -	A telescope, value six guineas to each. 50*l.* for the deviation of vessel.	Public vote.
Thomas Goss, R.N., Inspecting Commander. John Starke, chief boatman Edmund Roderick - William Spriddle - William Frances - - James Clancey - - James Ahern, Commissioned boatman. John Roche - - Thomas Broderick - Seamen on leave from H.M. Ship "Sans Pareil." John Kerns, Pensioner.	The "Uredan," an Austrian brig, having sustained much injury off Cape Clear, bore up for Queenstown, when it was blowing a gale in very thick weather, and mistaking Inch Bay for the harbour, she stood in, and struck on the rocks of an outlying reef off Guillen. Being useless on shore, the rocket apparatus was put into the coast guard boat, and with the greatest difficulty and risk of life a landing was effected on the reef, over which the sea was breaking heavily. From this spot a rocket line was fired, which passed over the brig, and by it 12 out of 13 of the crew were saved. This service occupied 6 hours, on a dark and tempestuous night, and was so well timed that in less than ½ an hour after the last man was landed not a vestige of the wreck could be seen. The Inspecting Commander was also presented with the silver medal, and each of the men with 2*l.*, by the Royal National Life Boat Institution.	Jan. 27, 1861 -	Silver medal - Bronze medal each.	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Jean Felix Auguste Herclat, master of the French vessel "L'Étoile" of Carrutan.	Picking up 8 out of 11 of the crew of the "Victor Emmanuel," of London, stranded near St. Catherine's Point, and landing them at Southampton.	Jan. 30, 1861 -	A telescope -	Mer. Mar. Fund.
E. A. Neejäbr, master of the Mecklenberg barque "Auguste Hillman."	On the 29th January the "Eagle," of London, encountered a very heavy gale in lat. 19° 19′ S., long. 58° 49′ E. After losing some canvas, a heavy sea threw her on her beam ends, swept her decks, and washed the master, mates, and some seamen overboard. On cutting away the masts the "Eagle" righted a little, and the pumps were kept going day and night, until 2d February, when the "Auguste Hillman" hove in sight, and rescued the survivors (12 in number), by sending them a boat, all the boats of the "Eagle" having been lost. They were treated with great kindness, and landed at St. Helena on 11th March.	Feb. 2, 1861 -	A gold watch -	Public vote.
Owners of ditto - -		- - -	26*l.* 14*s.* for subsistence.	
Captain Ricci, master of the Freneh barque "Bahia."	The barque "Menam," on 26th January 1861, when in lat. 4° 58′ N., long. 20° 40′ W., sprung a leak, which steadily increased till the 4th February, when the ship was in a very dangerous state. On the morning of the 6th, at 9 AM., the barque "Bahia," observing her signals of distress, bore down, and offered to receive her crew. About 1 PM. she was abandoned, in lat. 19° N., long. 32° W., by the crew, (15 hands,) who were received on board the "Bahia," treated with great kindness, and landed on the Island of Salut. On the 24th February the French authorities at that place placed them on board the French frigate "Amazone," for conveyance to Fort de France in the Island of Martinique, where the British Consul took charge of them. Whilst on board the "Amazone" the "Menam's" crew were treated with great liberality.	Feb. 6, 1861 -	A sextant - -	Public vote.
Authorities of Guiana and Martinique.		- - -	The thanks of Her Majesty's Government.	
Captain Bechamel, Captain of the French frigate "Amazone," and his Officers.		- - -	Compensation for expenses offered but refused.	
Elisha Burch, master of the U.S. whaling barque "Civilian," of Province Town.	The "Vocalist," of Liverpool, having become waterlogged, and fast settling down, was fallen in with on the 7th Feb. in lat. 11° N., long. 40° 36′ W., by the "Civilian," whose master immediately bore down to her assistance. When sufficiently near, the "Vocalist" lowered her boats, and her master and crew (23 in all) were kindly received on board the "Civilian," subsisted for 10 days, and landed at Barbadoes; the American vessel leaving her cruising ground to perform this service.	Feb. 7, 1861 -	Gold chronometer -	Public vote.
Owners of ditto - -		- - -	18*l.* 5*s.* for subsistence, and 150*l.* for detention.	
Robert Boyd - - -	The "Martha," of Belfast, got on a reef of rocks off Ballywalter, during the night of the 8th Feb. At daylight the next day she was observed with the sea breaking over her. Two boats started from the shore to rescue her crew, who were supposed to have got on the reef, but which turned out not to be the case. One of the boats then proceeded to the wreck, on which 3 men were seen, but the sea was so high that the "Martha" could not be boarded, and the men who manned the boat, after making every exertion at the risk of their lives to save them, were finally obliged to leave her. She broke up, and the crew were lost.	Feb. 8, 1861 -	1*l.* each - -	Mer. Mar. Fund.
George Malone - -		- - -		
Robert Adair - - -		- - -		
Samuel Adair - -		- - -		
Frederick Thompson -		- - -		
James Gunning - -		- - -		
Fishermen of Ballywalter				

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
John Pordage, master The mate 2 able seamen, and 2 apprentices Of the cutter "Pride," of London.	The "Cumberland," of Shields, being in a sinking state from the violence of a heavy gale, about 10 miles off Rockcliff, was observed by the "Pride," which at once bore down to her assistance. The crew of the "Cumberland" succeeded in getting into their boat, which was hauled to the "Pride" by means of a line hove to its crew for that purpose. The "Cumberland" shortly afterwards went down. Her crew were landed at Bridlington.	Feb. 9, 1861	10*l.* to be divided amongst them.	Mer. Mar. Fund.
John Dixon Robert Laidley Robert Harland William Walker Isaac Dobson John Philpot William Stoir William Tyreman Matthew Laidley George Martin John Stoir Christopher Collins Crew of the Whitby lifeboat.	About 3 P.M. on the 9th Feb. the Whitby lifeboat went off during a heavy gale, to rescue the crew of the "Merchant," and being struck on the broadside by a sea immediately on arriving close to the stranded ship (which was about 150 yards from the beach), she capsized, and out of her crew of 13 men all perished but 1 (Freeman), who was washed ashore. All endeavours to save the men, by throwing lines from the rocket apparatus, were unavailing. This boat and her gallant crew had previously to this melancholy accident made 4 trips, and saved 27 lives, the crews of 4 vessels stranded during the same heavy gale. When the boat was near the shore, Thomas Robinson, hearing voices from beneath her, dashed into the sea, and getting on the bottom of the upturned boat, spoke, and was answered through the air holes, by a man whose legs were jammed in by the gunwale and could not extricate himself. All this time Robinson was in great peril of being washed away, and finally, when an axe was got to cut a hole in the boat's bottom, and release the drowning man, an unlucky stroke brought it across his hand, and inflicted a serious injury. A sum of 5*l.* was awarded to him at the time; but the injuries he sustained having eventually rendered him permanently incapable of following his usual occupation, a further sum of 10*l.* was given to him.	Feb. 9, 1861	10*l.* to the wife of each man drowned (Collins was unmarried), and 3*l.* to each of 33 children. 5*l.* to the aunt who had charge of William Stoir's children.	Mer. Mar. Fund
Thomas Robinson A sailor.			15*l.*	
Richard Flanagan, ship builder.	The "William Campbell" was driven ashore near Wicklow coastguard station, and as the sea was breaking furiously over her, the crew were all washed away and drowned. Her master was saved by the exertions of Richard Flanagan, who succeeded in catching hold of him while in the surf, and prevented his being carried away by the returning waves. The inspecting commander of coastguard and Mr. Halpin exerted themselves most nobly to save life on this occasion.	Feb. 9, 1861	2*l.*	Mer. Mar. Fund.
Inspecting commander of coastguard, Arklow,			The thanks of the Board of Trade.	
Robert Charles Halpin, chief officer of the "Prince Albert" S.S.			Ditto.	
Peter Larsen, master P. Bender, mate G. Lion, seaman of the Danish schooner "Juliana."	The "Victoria," of Malta, was abandoned on 9th February, in lat. 46° 30′ N., long. 9° 20′ W., in consequence of her having lost her rudder and become very leaky. The crew (19 persons) were saved by a boat from the "Juliana," manned by the mate and a seaman, who effected their rescue in 3 trips, at the imminent risk of their lives. Thirteen days after they were landed at Cadiz, having received great kindness during their stay on board the "Juliana."	Feb. 9, 1861	A telescope A silver medal to each, and 5*l.* to be divided between them.	Public vote.
Owners of ditto			13*l.* for subsistenee.	

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
John McNeil Boyd, Captain R.N., of H.M.S. "Ajax."	In a terrific gale on this day several vessels were wrecked at Kingstown Harbour. One of them, the "Neptune," struck on the east pier, and a line was thrown over her from the mortar, but the only man remaining on board was unable to secure it. Captain Boyd and several men belonging to the "Ajax" assisted the inspecting commander of coastguard in endeavouring to save life, and while attempting to get a line on board the "Neptune" a tremendous wave swept the glacis on which they were standing, and washed them into the sea. Captain Boyd and 5 of his men were unfortunately drowned.	Feb. 9, 1861 -	A silver medal to Mrs. Boyd, his Widow.	Mer. Mar. Fund.
Murrell Baines, and 14 other fishermen and boatmen of Wells, and William Kemp, chief boatman in charge of the Morston station—	The barque "Favorite" having ran ashore near Blakeney, several boats proceeded to her assistance. The "Enterprize" arriving first alongside, the crew had commenced getting into her, when the "Sailor's Friend," a much larger boat, arrived, and they got into her, and were conveyed	Feb. 9, 1861 -	1*l.* to each -	Mer. Mar. Fund.
Forming the crew of the "Sailor's Friend."				
Pleasance Johnson -	to shore, at considerable risk, the	- - -	10*l.* each, and 3*l.* to	
Margaret Johnson -	wind and sea increasing very	- - -	each child under	
Phelinda Johnson -	rapidly, and the boat being	- - -	15 years of age	
Jane Neal - -	heavily laden by the addition of	- - -	(4 in all), and 3*l.*	
Mary Ann Easter -	the 16 rescued persons. At the	- - -	to the daughter of	
Jeminia Warnes - -	time that the "Sailor's Friend"	- - -	Margaret John-	
Mary Ann Groveling -	put off from shore, a boat called	- - -	son, of full age,	
Mary Mossingham -	the "Farewell" put off also,	- - -	but a cripple.	
Widows of the crew of the "Farewell," who were all drowned.	but she was capsized in trying to make the shortest passage to the wreck, as there was more sea on the way she went than her pilot was aware of, and the 8 persons on board her were all drowned.			
Frederick Ibsby, master -	The crew (6 in number) of the	Feb 10, 1861 -	A telescope -	Public vote.
Newell J. Bowden, mate -	"Escape" were rescued in an	- - -	A telescope.	
Crew of the "George Turner," of U.S.	exhausted state from their sinking vessel, at considerable risk,	- - -	6*l.* each.	
Owners of ditto - -	in lat. 48° 50′ N., long. 6° 50′ W., by a boat manned by the mate and one seaman sent from the "George Turner," her own boat having been broken to pieces. The rescued persons were treated most kindly during the 14 days they were on board the American vessel. The boat of the latter was much damaged in performing the service.	- - -	6*l.* 13*s.* for subsistence.	
Michael Elliott - -	On 9th February, at midnight	Feb. 10, 1861 -	1*l.* - -	Mer. Mar. Fund.
David Johns - -	during a strong gale from the	- - -		
Coastguard boatmen.	E.N.E., with squalls and very			
Robert Bate - -	heavy surf on the coast, the	- - -	15*s.* each -	
William Pengelly -	"Anne," of Plymouth, was ob-	- - -		
Richard Headon - -	served in the roadstead off	- - -		
Fishermen.	Clovelly, showing a light, and			
10 men for carrying the boat.	her crew hailing for a boat. As she was out of mortar range no attempt was made with the apparatus, but the coastguard boat was carried along the beach to the Quay Pool, a distance of 250 yards. The heavy surf and darkness rendered it unsafe to launch her until 4.30 A.M. on the 10th, when she was manned by the 5 coastguard and fishermen, who at considerable risk succeeded in boarding the vessel. The master refused assistance from the coastguard, but retained the three fishermen, paying the latter 5*s.* each for their services.	- - -	2*s.* each - -	

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Daniel James, master Robert O. James, mate William Watson William King, seamen William Clench, boy Of the smack "Beulah," of Colchester.	On the morning of 10th Feb., during a gale, the "Journal du Bord" was observed on the Sunk sand, but there was so much sea that it was found impossible to get near her. The "Beulah" laid by upwards of 4 hours, when, as the "Journal du Bord" was sinking fast, the crew (6 persons) got into their boat, and drifted amongst the breakers, the smack going after her, and succeeding, at some risk and by means of a line, in saving them. On 8th February the "Beulah" had saved the crew of the French brig "Henri et Français;" no risk was, however, incurred in this service.	Feb. 10, 1861	10*l.* to be divided amongst them.	Mer. Mar. Fund.
Thomas Bulger, late Serjeant in the 3rd York Militia.	For swimming with a line to the "Sir Allan McNab," of Maryport, ashore near Arklow, after a boat had been capsized on launching, and another had twice missed the vessel, owing to the heavy sea. The crew of the "Sir Allan McNab" reached the shore in their boat shortly after Bulger had reached the wreck.	Feb. 11, 1861	2*l.*	Mer. Mar. Fund.
Captain Hendrick Johnson, master of the Norwegian Brig "Admiral Petter Fordenskjold," of Sandefjord.	The "Arethusa" having sprung a leak and taken in much water over all in a heavy gale, her pumps refusing to suck, and the crew exhausted, was abandoned in lat. 49° 48′ N., and long. 9° 0′ W. The crew (19 persons) were received on board the "Admiral Petter Fordenskjold," which put back to land them at Queenstown, after treating them for 5 days with great kindness.	Feb. 16, 1861	A telescope 50*l.* for subsistence, detention, &c.	Public vote.
Captain Girand, master —— Moyon, boatswain The crew of the "Estelle," of Nantes.	The "Mariner," of Rochester, being in a sinking state, was abandoned by her crew (10 persons) on the 15th Feb., and on the 17th they were seen in the midst of a heavy gale, 100 miles off Cape Finistere, by the "Estelle," which bore down along side their boat. In consequence of the heavy sea running, the rescue could only be effected by lowering the "Estelle's" men with ropes into the boat, and hauling the "Mariner's" men on board. In performing this dangerous service the arm of the boatswain of the "Estelle" was severely bruised. The rescued persons were treated kindly, subsisted for 4 days, and landed at Nantes, the owners refusing any compensation for the service.	Feb. 17, 1861	A telescope 2*l.* 10*l.* to be divided amongst them.	Public vote.
Alexander Gray Donald M'Calinan Edwin Bevan Boatmen. John Boshan John Summers Alexander Taylor Fishermen.	Going off twice in a boat, and saving 3 men and a boy from the "Traffic," of Banff, wrecked on the Long Craig rocks, off Rattray Head. The boat was driven back 3 times, full of water, before the wreck was reached.	Feb. 18, 1861	2*l.* each	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
George Harwood - - William Day - - Seamen belonging to the "John" of Barnstaple.	During a storm, about 11 P.M., the "Hero," of Bideford, broke the ring of her mooring buoy in Penzance Harbour. Her anchor was let go, but not holding she swung head out. Shortly after, the boat of the "John," of Barnstaple, manned by George Harwood and William Day, came to render aid. The "Hero" drifted out of the harbour, in spite of all exertions, and before those on board could all get into the "John's" boat, she was in broken water. A heavy sea then struck, and filled the "John's" boat, and she went down with 7 out of the 8 persons on board, including the 2 gallant volunteers from the "John."	Feb. 18, 1861 - - -	10*l.* to each widow, and 3*l.* to each child under 15 years of age (9 in all).	Mer. Mar. Fund.
Mosseca Castellan, master of the Neapolitan brig "Olga," of Naples.	The "Raglan," of Newport, having sprung a leak, was abandoned in lat. 48° 23′ N., and 8° 52′ W., in a sinking state. The "Olga" hove in sight, and rescued her crew, treated them with the greatest kindness for 11 days, and landed them at Lisbon. To effect this, the "Olga" deviated from her course, not having sufficient provisions to continue her voyage to Castelamare, whither she was bound.	Feb. 19, 1861 -	Telescope - -	Public vote.
Mr. Robert Netterville Barron, of Ballynacourty House, Wexford.	The brigantine "Susan," of Cork, got on the rocks near Ballynacourty, and became a total wreck, 4 of the crew being lost through the extreme violence of the gale and sea. The remaining 2 were rescued at considerable risk, during a temporary lull of the wind, by Mr. R. Netterville Barron, a young gentleman of 19, who gallantly volunteered to go off in his father's boat to the vessel, and was accompanied by 2 coastguardman and 3 others.	Feb. 19, 1861 -	Telescope - -	Mer. Mar. Fund.
Augustus Dower - -		- - -	2*l.* each - -	
Thomas Walsh - -		- - -		
William Waugh - -		- - -		
Thomas Archall - -		- - -		
Thomas Hayes - -		- - -		
David Beddoe, seaman - Albert Furlong, landsman	The "Elizabeth and Mary" parted from her anchors in Carregowen Roadstead near Fishguard, during a very heavy gale, drove on the rocks, and became a total wreck. Her crew consisted of 2 men and a boy, the latter of whom was drowned. By the exertions of Beddoe and Furlong, who, at great risk, swam out with a line, the lives of the 2 men were saved.	Feb. 19, 1861 - - -	A bronze medal and 2*l.* each - -	Mer. Mar. Fund.
Captain Wicke, of the Bremen barque "Roland."	The "Echo," of Liverpool, when near the Tuskar, had suffered so severely from the bad weather, and the damage made by the cargo which had broken loose in consequence, that she was rapidly sinking. The "Roland," lying to, about 5 miles distant, saw her signals of distress, and bore down to her aid. Two boats were launched from the "Echo," and both stove. The weather moderating, a third boat was launched in safety, and in 3 trips, the whole of the "Echo's" crew were placed on board the "Roland," which had laid by a whole day in a situation of great peril to receive them. She then bore up for Holyhead, and landed the "Echo's" crew on the following day. The master of the "Roland" displayed great humanity to the shipwrecked men.	Feb. 19, 1861 -	A sextant - -	Mer. Mar. Fund.
Owners of ditto - -		- - -	3*l.* 10*s.* for subsistence	

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
John Sargo, of Thorney Island, master gunner. David Morris, of Castle Martin, labourer.	The "Harmony" having been wrecked in Freshwater Rocks Bay, and the efforts to get a line on board by means of the mortar apparatus having been ineffectual, these two men, at low water, waded out, and got hold of a line from the vessel, by which the hawser was passed to the wreck, and the crew saved.	Feb. 21, 1861 -	1*l.* 1*l.* - -	Mer. Mar. Fund.
Philip Lefenore, of La Ville, Island of Sark. Philip Guille - - Elias Guille - - Peter Hamon, also of Sark	On 21st February, during very rough weather, the Sark cutter "Rival" was wrecked on a rock at the entrance of the harbour. Six of the crew and passengers got on the rock, and two got safely ashore by means of the boat. P. Lefenore having induced 3 men to join him, then got into the boat, and at great risk reached the rock, over which the sea was breaking with considerable force, and assisted 3 of the persons into it, and having landed them, returned to the rock, when the remaining 3 were rescued in the same way. He incurred great risk whilst on the rock, and was nearly washed into the sea.	Feb. 21, 1861 -	A bronze medal and 2*l.* 2*l.* each.	Public vote.
William Griffiths, master, and the crew of the steam tug "Brother Jonathan."	The "Ailsa," of Cardiff, being in distress in St. Bride's Bay, intelligence of her dangerous position was conveyed to Milford, where the "Brother Jonathan" was lying, whose crew at once went to her aid, and with great difficulty made fast three hawsers to her, all of which were parted by the violence of the sea. Not being able to save the vessel, whose master and mate had been washed overboard, every exertion was made to save the crew (15 persons), which was effected at some risk by means of lines.	Feb. 21, 1861 -	10*l.* to be divided amongst them.	Mer. Mar. Fund.
Thomas Connor, master - John Devereux - - John Moran - - William Pear - - John Symonds - - Crew of the "Petrel," of Wexford.	The "Petrel" fell in with the "Billow" dismasted off the Smalls, and immediately bore down to assist her. The crew of the "Billow" with difficulty launched their boat, and having secured a line, thrown to them from the "Petrel," were by its means taken on board that vessel, and soon afterwards the "Billow" drifted ashore, and became a total wreck.	Mar. 1, 1861 -	2*l.* - - - 1*l.* each - -	Mer. Mar. Fund.
James Walker, master, and the crew of the smack "Rosa," of Yarmouth.	The schooner "Ganymede," of Aalborg, having made signals of distress, the master of the "Rosa" at once bore down to her, and bringing his vessel near, propelled his boat with the only oar she had, to the schooner, and took out her crew, in addition to the crew (5 persons) of the "Atlas," of Stockton, who had abandoned their vessel in a sinking state, and had been picked up by the "Ganymede." They were afterwards transferred to the Yarmouth lifeboat.	Mar. 8, 1861 -	3*l.* to be divided amongst them.	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Federico Megna, master of the Neapolitan Ship "Federico," of Naples. Owners of ditto - -	When in lat. 38° 44′ N., long., 13° 28′ W., the master of the "Betsey," of London, requested the master of the "Federico," of Naples, to stay by him, as he feared the "Betsey" was sinking fast. On the following day the "Betsey," having 5 feet of water in her, was abandoned by all hands (8 in number), who were received on board the "Federico," treated kindly, and landed at Falmouth 11 days afterwards.	Mar. 12, 1861 -	A telescope - - - - - 6*l.* 17*s.* 6*d.* for subsistence.	Public vote.
Captain Schroot, master - The crew, 7 men of the Dutch schooner "Sirene."	When in lat. 36° N., long. 65′ W., the "Sirene" observed the "William Hammond" showing signals of distress, and at once bore down to render aid. Finding the "William Hammond" was very leaky from injuries received in a succession of heavy gales, and the crew in danger, the master of the "Sirene" took them all (24 in number) on board, and landed them at Boston. The crew of the "William Hammond" were 12 days on board the "Sirene," which being a small vessel her crew suffered inconvenience from so large an increase to their numbers, especially by the reduction in the allowance of water.	March 17, 1861 - - - -	A telescope - 2*l.* each.	Public vote.
M. Bougnion - - M. Labriere - - Custom House officers of Portzale.	The schooner "James," of Jersey, having run aground about 20 miles north of Brest, M. M. Bougnion and Labriere went into the surf, and rescued one of the crew (in a speechless state), who had jumped overboard. They also hauled on shore another by means of a rope, and he, understanding the language, and discovering it was high water, made that fact known to his shipmates, who remained on board until the tide receded and enabled them to walk ashore.	March 19, 1861 -	2*l.* each, accompanied by a letter of thanks from Her Majesty's Government.	Public vote.
Captain Norton, master of of the American ship "Graham's Polley."	The "Zillah," of Montreal, encountered very heavy weather, sprung a leak, became waterlogged and quite unmanageable. The "Graham's Polley" hove in sight, and rescued the master, crew, and two passengers, (9 in all), treated them with great kindness, and landed them at New York, for which service the master refused all compensation.	March 21, 1861 -	A telescope value 8 guineas.	Public vote.
Antonio Suiza Cattarimich, master of the Austrian brig "Marco Antonio." Owners of ditto - -	The barque "Orissa" suddenly striking on a sunken rock, in lat. 37° 35′ N., long. 10° 35′ E., began to fill rapidly, and all the crew excepting one managed to get into the boats. The next day at 4 P.M., they discovered the "Marco Antonio" ahead, and making all possible speed towards her came alongside about 7 P.M. They were kindly received on board, subsisted for 11 days, and landed at Carthagena.	March 21, 1861 - - - -	A telescope - 26*l.* 17*s.* for port charges and detention.	Public vote.
T. E. Bockhoat, master of the Dutch galliot "Zeemeeaw," of Veendam.	The brig "Maria," of South Shields, sprung a leak, from having met with heavy seas, and the pumps becoming choked she began to fill. The crew (10 in all) were saved by the Zeemeeaw, and landed at Lisbon on the 2d April, she putting into that port for the purpose.	March 24, 1861 -	A telescope - 12*l.* for subsistence and port charges.	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
George Quale, Pilot Isaac Quale Paul Reddean Richard Knowles And three others Mariners.	The schooner "Elizabeth," endeavouring to work out of Laxey Bay in a strong wind and sea, missed stays, and struck upon the rocks, a cable's length to the southward of the beach. George Quale and 6 others proceeded at once to her assistance. The former gained a footing on a rock, at ½ tide, which position he maintained with difficulty, the sea repeatedly breaking over him, and made fast a line which he received from the "Elizabeth," by which, with the help of his companions, the whole of the persons on board (10 in number) were safely landed, just in time to prevent their rolling over with the vessel.	April 7, 1861	1*l.* 5*s.* each	Mer. Mar. Fund.
Captain Legendre, master of the French brig "France," of St. Malo.	The "France" picked up the mate and 5 seamen, part of the crew of the "Prospero," of Liverpool, which vessel foundered in consequence of striking an iceberg, about 150 miles from Cape Race. They were conveyed to the Island of Saint Pierre, and placed in the hospital, having, from their exposure to cold in the boat for 6 days, become frost bitten. The master of the "France" refused compensation for subsistence. The remainder of the "Prospero's" crew had left her in the long boat, and have not since been heard of.	April 13, 1861	A telescope	Public vote.
Thomas Fleetwood Roskell, master of the "Glasgow," of Liverpool.	The "Mary Balcom," of Halifax, N. S., encountered a succession of terrific gales, and it was found necessary to cut away her masts, and she subsequently became waterlogged, and quite unmanageable. On the 15th April she was fallen in with by the "Glasgow," by which the master and crew (5 in all) were rescued and taken to New York. The master of the "Glasgow" refused compensation for subsistence.	April 15, 1861	Telescope	Public vote.
William Benson, master A. M'Dougall, chief mate W. Benson, junior, third mate. Robert Wood Peter Peterson James Houston Bernard Queen William Mitchell John C. Lestie Robert Peggs S. G. Johnston John Black Seamen of the "Actæon," of Glasgow. Owners of ditto	The master and 15 seamen were taken from the "John," of Liverpool, when that vessel was dismasted and in a waterlogged state, off Cape Hatteras, by a boat from the "Actæon," manned by the chief and 3d mates and 9 men, after 5½ hour's labour, the sea running very high at the time. The rescued persons were landed at Liverpool.	April 18, 1860	A telescope 3*l.* 2*l.* 1*l.* each 37*l.* 19*s.* 6*d.* for subsistence.	Public vote.
Johann Von Eitzen, fisherman of Finckenwarder.	The "Mary," of Carnarvon, struck on the Scharhorn Bank, and became a complete wreck. Her crew were, however, saved, and landed at Cuxhaven, by Eitzen, who was near the "Mary," and who bravely assisted the crew (8 in number), who had taken to their boat, on board his vessel, which was slightly damaged.	April 18, 1861	8*l.*	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Silas Mariner, master of the American barque "Brothers."	The schooner "Union," of Halifax, stranded on 6th May, on a reef of rocks, on the Isle of Piries, and became a total wreck. The master and crew landed in safety, and after remaining some days the "Brothers" hove in sight, and on being signalled, promptly went to their assistance took them on board, and landed them at Philadelphia. The master of the "Brothers" demanded no recompence for his timely assistance.	May 6, 1861 -	Telescope - -	Public vote.
Don José Arnés Garcia, Administrator of Customs. Vera.	At 6 A.M. on the 21st May, during a strong breeze and high sea, the vessel "Lockwoods," which was discharging her cargo at Garrucha, Spain, started her anchors, drove ashore, and immediately filled. One of her lifeboats was put out, but she parted the rope fastened to her, and capsized. The 2 men in her were rescued by the people on shore going into the sea after them. A warp was then secured to the mizen mast head, and sent ashore by means of water casks, and by it 2 of the crew were hauled ashore. 3 other men were endeavouring to reach the land by the same means, and were about midway, when the hawser broke. The men, however, were dragged through the serf and saved. One other of the crew got ashore by means of a life buoy. The Spaniards then bent on one of the "Lockwood's" boats to a line which had washed ashore from the ship (keeping a line fast to her from the shore), and by this means the master and remainder of the crew (11 persons) were safely landed. In 5 minutes after this rescue had been effected the "Lockwoods" went to pieces.	May 21, 1861 -	A gold medal - -	Public vote.
Melchor de Rosa y Leon -		- - -	A silver medal and 2*l.* 10*s.* each.	
Diego Sola y Gimenez - Petty officers.		- - -		
Pedro Ramon Martinez -		- - -	A silver medal to each.	
Juan Manuel Garcia -		- - -		
Juan Faz - - -		- - -		
Pedro Gerez - -		- - -		
Melchor Garcia - - Matriculated seamen.		- - -		
Vincente Cano Muñoz, master of a coasting craft.		- - -		
Other inhabitants of Garrucha who rendered services.		- - -	The thanks of Her Majesty's Government.	
N. Repetto, master of the Sardinian barque "Australia."	When about 300 miles from the River Plate, the brig "Venilia" encountered severe weather, became disabled, having 5 feet of water in her hold, and pumps choked. The barque "Australia," seeing the signals of distress, promptly bore down to her aid, and hove to so close to her that the vessels came in collision. Whilst in that position some of the "Venilia's" crew jumped on board the barque, which remained by all night, it not being possible to take off the remainder of the crew at that time. On the following day they were saved by a boat from the "Australia," manned by part of the "Venilia's" crew. After receiving every kindness and attention, they were landed at Liverpool, having been on board 75 days.	May 24, 1861 -	A gold watch -	Public vote.
Owners of ditto -		- - -	58*l.* 18*s.* paid for subsistence, and payment of any further expenses offered.	
Antonio Zululta, master of the Spanish brig "Destino."	The "William Hyde" becoming waterlogged was abandoned by the crew (14 or 15 persons) when about 90 miles E.S.E. of Cape St. Antonio. After being 3 nights and 2 days adrift in very boisterous weather, they were rescued by the "Destino," and landed the next day at Rio de Janeiro. The master refused compensation for subsistence.	May 30, 1861 -	A sextant - -	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Constant Revel, master of the French brig "Père de Famille."	The "Canadian," S.S., of Montreal, in passing through the Straits of Belle Isle, struck some ice, and shortly afterwards filled and went down. The master and 49 of his passengers and crew got into one of her boats, from which they were taken by the "Père de Famille," and landed on the following morning. The casualty occurred only a short distance from the harbour.	June 4, 1861 -	A telescope - The lifeboat belonging to the "Canadian," valued at 40*l*., was given to Captain Revel.	Public vote.
A. F. Tobias, master of the Hanoverian barque "Olympia."	On the 18th June last, at 8 A.M., the Hanoverian barque "Olympia," being then off Algoa Bay, in lat. 34° 44′ S., long 26° 20′ E., laden with a cargo of rice from Akyab, bound to Falmouth, saw a boat in distress, labouring to get to her. On nearing her, a line with a life buoy attached was thrown to the boat, by which means the persons in her, consisting of the captain and 8 men, lately forming part of the crew of the "Adriatic" were saved; the remainder (15) of the crew of that vessel having been drowned in her when she foundered on the previous night. Twenty-eight days afterwards these 9 men were landed at St. Helena, having whilst on board the barque been treated with much kindness.	June 18, 1861 -	A telescope -	Public vote.
		- - -	19*l*. 12*s*. paid for subsistence.	
Master and crew of the Spanish cutter "Pez."	Rescuing the crew (7 persons) of the brig "Francis," which had foundered on the Coast of Puerto Colono. The crew had taken to the boats, and were picked up by the "Pez," and conveyed to Puerto Colono.	June 20, 1861 -	A sum of 5*l*. -	Public vote.
James Bowen, master of the American schooner "Maryland."	The "Creole," of Belize, encountered a hurricane in long. 70° 30′ W., and lat. 30° 20′ N., which carried away her foremast by the board, and caused her to spring a leak. The hands, having been almost constantly employed at the pumps for some days, were quite exhausted, when she fell in with the "Maryland," by which vessel the crew (9 in all) were rescued, and landed at New York.	July 18, 1861 -	A telescope -	Public vote.
John Ellerthorpe, Foreman of the Humber Dock-gates.	For constant acts of gallantry in saving life between the years 1820 and 1861 (July 30) during which time he succeeded in rescuing 29 persons. On several occasions he incurred very great risk.	Between the years 1820 and 20th July 1861.	A silver medal -	Mer. Mar. Fund.
William May, master -	The brigantine "Eliza Stewart," of London, sprung a leak and foundered. Her crew (5 persons), who had taken to the boat, were picked up about 25 miles S. by E. of Flamborough Head, and conveyed to Hull by the smack "William and Ann," which left the fishing ground for that purpose.	July 21, 1861 -	2*l*. 10*s*. - -	Mer. Mar. Fund.
Reuben Hall, mate -		- - -	1*l*. 10*s*.	
T. Dickinson, seaman.		- - -	1*l*.	
B. Green and R. Potter - Apprentices of the fishing smack "William and Ann."		- - -	10*s*. each.	
L. J. Wilhelmie, master of the Dutch barque "Johanna Maria" of Rotterdam.	On the 21st August, when the "Hero" of Liverpool was on a voyage from Cardiff to Manilla, she was abandoned in a sinking condition by the master and crew (13 in number), who were kindly taken on board the Dutch barque "Johanna Maria," and were landed at Rotterdam on the 17th October. Sufficient provisions were saved from the "Hero" to subsist the rescued persons nearly all the while they were on board the barque.	Aug. 21, 1861 -	A gold watch -	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Gauden Lawrenson George Gear James White Fishermen of Eswick.	As a boat containing 4 men was returning from Lerwick to North Nesting, Shetland, she was capsized to the north of the Maiden Stack, and 3 of her crew were drowned. The fourth remained in her until rescued by the 3 fishermen mentioned, who incurred some risk in taking him out of the boat (which was in a waterlogged condition), from the boisterous state of the weather at the time.	Aug. 22, 1861	10*s.* each	Mer. Mar. Fund.
Thomas Hastings, master, and the crew of the brig "Martha," of Liverpool.	On the morning of the 24th Aug., during a heavy gale from the W.N.W., whilst the brig "Martha" was laying to under reefed main topsail, about 20 miles off Noss Head, she succeeded, at great risk to herself, in picking up a fishing boat marked and numbered W.K. 1,305, with a crew of 5 men in her, who were taken on board the brig, and whose boat, which had had her sails split, was taken in tow. On the evening of the following day the rescued persons were landed at Wick.	Aug. 24, 1861	A sum of 10*l.* to be divided amongst them, as they might agree amongst themselves.	Mer. Mar. Fund.
A. Aspeslagh, master P. Silaeis A Sap E. Lawvereyn P. Laforce Seamen. P. Burand, boy Of the Smack "Prince Royal."	The "Ceylon," of Liverpool, experienced very severe gales of wind and heavy seas, which stove in the long boat, and carried away two others. Finding 7 feet of water in the hold, signals of distress were made, and answered by the "Prince Royal," which took off the crew at considerable peril, a few minutes before she went down. This service was rendered in lat. 56° N., and long. 40° E., and the "Prince Royal" left her fishing ground for the purpose of performing it, and landing the crew at Ostend.	Aug. 28, 1861	5*l.* 2*l.* each. 1*l.*	Public vote.
P. Dewsberry, master William Smith, engineer Thomas Linden Philip Jones Seamen. Thomas Davies, boy All of the "Beaufort."	At 4·30 A.M. the "Beaufort" tug when off Mumbles Head, sighted the "Villiers" on the Mixon Sand. She at once ran down to her, and succeeded at considerable risk in backing between her masts and rescuing the 4 men on board.	Sept. 3, 1861	3*l.* 1*l.* each. 10*s.*	Mer. Mar. Fund.
Samuel Farrell Thomas Ward James Toole Patrick Culbert Fishermen of Wicklow.	During the heavy gale on the night of the 12th September, the brigantine "Glide," of Dungarvan, whilst on a voyage from Cardiff to Waterford, was rendered quite disabled. On the following morning, at 3 A.M., she went down, Wicklow Head bearing W.N.W. 7 miles, there being at the time a strong breeze and bad sea. The crew (6 in all) took to their boat, which was in a very bad condition, and tried to make the shore. They were, however, seen by Farrell, who manned his boat, and reached them about 3 miles off shore, and took their boat in tow, as they were all too exhausted to reach land by themselves, and his (Farrell's) boat too small to take them on board it. The tide was setting at the time of rescue, and had Farrell not reached them when he did, they would have been drowned round the Wicklow Head, where their boat could not have lived.	Sept. 13, 1861	10*s.* each	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Herman Herike, master Hermann Hurkamf, mate Otto Plarfe, 2d mate Franz Steller, carpenter Johann Westelr Hermann Klatle, sail-maker. Johann Busring Auton Vedder Werney Behreur Seamen.	The "Neptune," of London, encountered a severe gale on the 17th Sept., which lasted nearly 2 days, and caused her to lose a number of spars and all her boats, and to spring a leak, which, in spite of incessant exertions on the part of the crew, gained upon them so as to render the ship utterly unmanageable. On the 19th Sept., when in long. 37° 45′ W., the master of the Bremen ship "Magdalena" sent 2 boats (each manned by 4 men) to the "Neptune," and took off her crew, and received them on board his vessel, where they were subsisted and most kindly treated until landed at New York on the 5th Oct. For this service the master of the "Magdalena" refused compensation.	Sept. 19, 1861	A gold watch 30*s.* each. 1*l.* each.	Public vote.
Captain T. A. Hallengren, master of the Swedish brig "Hedwig Charlotta." Messrs. Ludwig, Tyden, and Co., owners.	The "Hedwig Charlotta," observing a strong light in the sky, altered her course, and bore towards it, and found it to arise from the British ship "William Brown," which was on fire from stem to stern, and had been abandoned. Picked up 5 of her crew from the gig, and proceeded in search of the long boat, which contained the remainder, and some passengers (including 3 females), in all 18 persons. She was at length discovered, and those in her taken on board the Swedish brig, which then proceeded to Madeira, and landed the 23 persons on the 6th October. The shipwrecked persons received great kindness and attention on board the "Hedwig Charlotta," the owners of which declined to receive any compensation.	October 2, 1861	A gold watch Thanks of Her Majesty's Government.	Public vote.
Captain Rossi, master of the Chilian barque "Ester."	The "Ester," on her voyage from Monte Video, fell in with the British barque "Autumnus" in lat 53° 35′ S., long. 79° 17′ W., and on drawing near to her discovered her to be on fire. At the request of the master, Captain Rossi took him and his crew (13 persons) on board the "Ester," and proceeded with them to Santiago.	Oct. 5, 1861	A telescope 12*l.* paid for subsistence.	Public vote.
Thomas Danger, of Bude, Commissioned boatman.	This man lost his life on the morning of the 8th October, whilst watching the wreck of the "John Booth." It is supposed he fell off the cliff, down which he was returning, after having visited another man who had charge of the rocket apparatus which had been employed the day before in rescuing the crew of this vessel.	October 8, 1861	15*l.* to widow	Mer. Mar. Fund.
Johann Walling, master of the Bremen barque "India." J. Ripp, master of the Rotterdam barque "Macassar."	The "Hull Packet," of Glasgow, on a voyage from Ayr to Seville, sprung a leak on the 9th Oct. The crew attempted to leave her for the vessel "India" (on a voyage to Jamaica), which happened to be near, but in consequence of a heavy sea their boat was swamped. A boat was then sent from the "India" to the "Hull Packet," which took off the crew (4 in number), but she sustained considerable injury from being dashed against the vessel. After being 24 hours on board the "India," the rescued men were transferred to the "Macassar," from which they were landed 7 days afterwards at Rotterdam. Very kind treatment was experienced by them on board the "Macassar."	October 9, 1861 Ditto.	A telescope Ditto.	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
O. C. Olsen, master of the Norwegian barque "Leif" of Havangor.	The steamer "Mario Bozzaris," of London, left Constantinople on 12th Oct., bound for Leghorn. On the 16th she was struck by a heavy sea, which shifted the cargo, and caused her to make much water, and which, in spite of all the exertions of her crew, increased to such an extent as to put out the fires in the engine room. The weather was at the time very bad, with violent squalls and a terrific sea. About 3 P.M. the barque "Leif" was seen, when, on signals of distress being hoisted, she bore down on the "Mario Bozzaris." As the crew of the steamer were exhausted from constant pumping, and as there were no hopes of saving her, they (excepting 1 man, who was subsequently discovered to have been left on the wreck,) left in the 2 lifeboats, and were taken on board the "Lief." Shortly afterwards both of the steamer's boats were destroyed by the violence of the sea. The "Lief" remained near the steamer, to render aid if possible to the man left on the wreck, but as this soon disappeared, she proceeded to Malta, where the survivors (24 persons) were landed. The master refused to receive compensation for subsistence.	October 16, 1861	A sextant - -	Public vote.
L. C. Blair, master of the "Brazil," of Richmond Maine, U.S.	The "Mary Ann Gann," of Faversham, on a voyage from Pernambuco to Queenstown, encountered a succession of heavy gales, in which she sprung a leak, had her decks swept, lost her masts, &c., and became a complete wreck. On the 17th October she was fallen in with by the American ship "Brazil," of Richmond, Maine, U.S., which bore down to her, and when the weather had moderated, sent a boat and took the crew (9 persons) off the wreck. These men were subsisted, and very humanely treated on board the "Brazil," and landed at New York on the 10th November. The master of the "Brazil" refused to receive any compensation for subsistence.	Oct. 17, 1861 -	A sextant - -	Public vote.
Edward Norton, master of the "Tryall," of Woodbridge.	The schooner "General Cathcart," from Shields to Faversham, having got on the Ship-wash Sand, the smacks "Tryall," "Wonder," and "Aurora's Increase" went to her aid, but, after staying on board some time, with the hope of saving her, losing their boats, gear, &c., and running great risk of losing their lives, they were compelled to leave her, the crew being taken on board the "Tryall," which proceeded to Harwich.	October 19, 1861	2*l.*	Mer. Mar. Fund.
And his crew of 5 men -		- - -	1*l.* each and 1*l.* for provisions.	
George Barrett, master of the smack "Wonder," of Woodbridge,		- - -	2*l.*	
And his crew of 4 men -		- - -	1*l.* each.	
Edward Lewis, master of the smack "Aurora's Increase," of Woodbridge.		- - -	2*l.*	
And his crew of 4 men -		- - -	1*l.* each.	
James Giles, master, and 3 hands of the "Pearl," of Plymouth.	About 1 P.M. on the day mentioned, the wind being S.W., blowing a fresh breeze, the "Pearl," when about 15 or 20 miles off Spurn Point, saw the "Galatea" running for the Humber, which, after being in sight for about an hour, suddenly went down. A man at the "Pearl's" masts head having discovered her boat, the "Pearl" run down to it, and rescued the crew, consisting of 5 persons. Their boat was stove, and making water.	October 22, 1861	2*l.* to be divided amongst them.	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Rrward granted.	Out of what Fund granted.
Edward Scott, master John Campbell, 2d officer John Lees, 3d officer George Rhind Thomas Davidson Henry Forsyth James Ford Seamen of the steamer "John Bell."	About 4 A.M. of the 27th Oct. the steamer "John Bell" when about 18 miles S.E. of the St. Mary's Rocks in the Straits of Bellisle, discovered the wreck of the schooner "John Silver" drifting at the mercy of the winds, and showing signals of distress, having struck on the rocks, beaten over them, and drifted out to sea with her bottom out, and otherwise much damaged. The weather at the time was very rough, with a strong gale from the W.S.W., and a high sea, causing considerable risk to the steamer's cutter and her crew of 6 men, who were sent to rescue the 3 men on board the schooner. On returning alongside the "John Bell," and just after the rescued persons, who were all but dead from cold and starvation, had been pulled on board, the cutter was struck by a heavy sea, which capsized her. After a great struggle her crew were rescued by the second cutter, which had been immediately lowered. The master and one other of the crew of the schooner were drowned the day after she struck. The survivors had been 4 days in their helpless condition when they were rescued.	October 27, 1861	A telescope A bronze medal and 2*l.* each.	Public vote.
William Smith Stephen Postill Henry Pickering George Knott William Miles William Sawden John Barnett Samuel Smith Coblemen of Bridlington.	These men, in their lugger, the "Spray," seeing a signal of distress flying from the sloop "Produce," of Hartlepool, bore down to her, and finding her in a sinking state, succeeded at great risk in taking off the crew. It was blowing a heavy gale at the time.	Nov. 2, 1861	1*l.* each	Mer. Mar. Fund.
Isaac Jennings, master of the American ship "William Chamberlain."	The barque "Garland," of Prince Edward's Island, left New York for Queenstown with Indian corn on the 29th October. On the 2nd November and following days she encountered heavy gales, in which she sprang a leak, and was thrown on her beam ends. The pumps getting choked, the leak increased, and she became waterlogged. In this condition she was fallen in with by the American ship "William Chamberlain," from Havre for New York, on board which vessel, the crew (11 persons) were received and treated with great kindness, and were landed at New York on the 27th of the same month. Captain Jennings declined receiving the usual allowance for subsistence.	Nov. 2, 1861	A sextant	Public vote.
John Loads Reuben Boyse Henry Dew William Loads John Otway Butcher Starling Charles Harvey Frederick Warnes William Hook Richard Holiday Fishermen, &c. of Blakeney.	During a violent gale from the N.N.E. the "Viscountess Canning," of Guernsey, drove ashore and became a complete wreck. On observing her signals of distress, the men named in the margin launched an open boat, and at great risk to their lives proceeded to the wreck, and with much difficulty succeeded in taking off the master and survivors of crew, 7 persons, one man having previously been washed overboard and drowned, and taking them ashore; but for this timely aid the whole of the crew would certainly have perished.	Nov. 2, 1861	2*l.* each	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
William Milton, chief boatman. William Tyrrell - William Russell - Commissioned boatmen. Frederick Lane, boatman All of Chapel coastguard station.	The "Yarborough," of Grimsby, struck on the Hall Sands, 2 miles off the Donna Nook coastguard station, and went down at 7 P.M. on the 2d November. Her crew, with the exception of 3 men, left in 2 boats, but before they could get into the last boat to leave her the painter broke, and she was unable to reach the vessel again to take them off. Their fate is therefore uncertain. The first boat with 10 men landed safely at Ingoldmells. The second boat was observed at half-past 12 on the 3d, 2 miles off the coastguard station at Chapel, with only one oar and two pieces, attempting to cut off two vessels that were passing, but they were not successful. The boatmen at the Chapel Station, in spite of the heavy surf, then manned and launched their small coble, and succeeded in reaching the boat and towing her safely to the shore at Ingoldmells, where her crew were landed. Some risk was run in performing this duty.	Nov. 3, 1861 -	Approved conduct of chief boatman, and awarded 1*l.* each to him and his crew.	Mer. Mar. Fund.
Thomas Adams, master and part owner of the smack "Volunteer," of Harwich.	The barque "Darius," of South Shields, from Sunderland for Constantinople, grounded on the Longsand during a heavy gale on the 2d November, and shortly afterwards sank on her port side, with only the mizen-mast and its rigging standing, about 15 feet above water. Three of her crew were drowned previous to the vessel's going down by the swamping of the longboat; the remainder, consisting of the master and 7 hands, took to the rigging, where they remained all night, with the sea washing over them. The next morning about 7 o'clock the smack "Volunteer," with two others, came to render aid, but the latter ultimately left without making any attempt to effect a rescue. The master of the "Volunteer," however, resolved to attempt the rescue, and having manned his boat with the men marked*, approached the wreck, but found it quite impossible to reach her. Whilst the boat was lying watching the barque, 2 of her crew, from cold and exhaustion, dropped from the mast and were lost. About noon, finding the breakers appeared to have increased, the boat returned to the smack, but the cries of the men on the mast, who imagined their rescue to have been abandoned, determined the "Volunteer's" crew to make a desperate attempt to effect a rescue. The boat was again manned by the same men, and taken in tow by the smack, which stood in towards the sand, and when as nearly abreast of the wreck as the master of the smack dared to venture, was sheered in, and cast off, but this attempt also failed, and the boat was immediately picked up. The "Volunteer," however, determined to make another attempt, and again tried the same plan, this time standing in to about 10½ feet of water, at considerable risk of striking the sand, but which she cleared. She was then hove to, and the boat succeeded in reaching the wreck, and taking off the 6 remaining men, and conveyed them to the smack, on board of which their wants were attended to until they were landed at 7 o'clock that evening at Harwich. These services were most praiseworthy, and were rendered at a time when several other vessels were in want of assistance, which would probably have afforded the smack's crew more remuneration.	Nov. 3, 1861 -	A telescope and 5*l.* -	Mer. Mar. Fund.
Robert Scarlet* - George Wyatt* - Benjamin Lambert* - John Lambeth* - Henry Bacon* - William Rodwood - William Harvey - Samuel Harris - John Mills - William Wyatt - James Owen - All seamen of the smack "Volunteer," of Harwich.		- -	3*l.* each. 2*l.* each.	Mer. Mar. Fund.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
Thomas Madlow, master of the schooner "Friendship," of Watchet.	The steamer "Waterwitch," of Belfast, was struck by a sea during a violent gale, which broke her rudder, made her spring a leak, and rendered her unmanageable. Every effort to keep her to proved unavailing, and she fell off, and would not steer, and the leak increasing rapidly, a signal of distress was made, which was observed by the "Friendship," which bore down, and remained by her, notwithstanding the severity of the weather, until she had received on board the entire crew of the steamer. The shipwrecked crew were landed at Watchet on the 7th November.	Nov. 5, 1861 -	A telescope -	Mer. Mar. Fund.
The crew (7 men) of the Walmer lugger "Brave Nelson."	The "Terra Nova," of Dartmouth, brought up in Dungeness Roads, and on the tide ebbing struck on a sunken rock, and afterwards foundered. The "Brave Nelson," which was then going to 2 large ships, seeing the danger which the "Terra Nova's" crew were in, immediately proceeded to their rescue.	Nov. 5, 1861 -	5*l.* to be divided amongst them.	Mer. Mar. Fund.
Hinrich Schroder, anchor fisher of Cuxhaven.	At 1 A.M. on the 15th Nov. the brig "Calumet," of Sunderland, bound from Hamburgh to Sunderland in ballast, stranded on the Buschs Sand during a heavy gale, having lost all ground tackle. As she began to break up, her crew, 7 in number, left the wreck in the long boat, and were subsequently picked up in an exhausted state by the skipper, Hinrich Schroder, who, with his men, treated them kindly, and landed them about noon at Cuxhaven.	Nov. 15, 1861 -	1*l.* for each person saved, total 7*l.*	Public vote.
Sydney Melhuish, master, and 5 men, forming crew of the smack "Spider," of Lowestoft.	On the 14th Nov. the "Egbert," whilst in the North Sea, on a voyage from Waterford to Shields, parted her anchor during a violent gale, and became disabled. On the 15th she took the assistance of 3 fishing smacks to tow her to an English port, but the wind changing they were all driven to the coast of Holland, where the "Egbert" went ashore at Goree Maas. Five of the "Egbert's" crew were saved by means of the "Spider's" boat, and were landed on the 19th at Lowestoft.	Nov. 15, 1861 -	5*l.* to be divided amongst them.	Public vote.
Klaas Duit, and 7 other boatmen, of Huisdwinen, near Helder.	During a gale from the N.N.W. the smack "Providence," of Yarmouth, drove on shore to the southward of Nieu Diep, and her boat having been knocked to pieces, the crew were unable to communicate with the shore. After beating about in the surf for about an hour, two shore-boats, manned by the men named, put off to the wreck, and rescued the crew.	Nov. 15, 1861 -	10*l.* between them -	Public vote.
Thomas L. Libby, master of the American brig "Young Republic."	The British schooner "Nourmahul," of Nova Scotia, on a voyage from Cardenus to New York, foundered at sea. Her crew (6 men) were rescued by the "Young Republic," and landed at Portland on the 26th November. In bearing down to the rescue of these men, Captain Libby acted in strong opposition to the desire of his crew and passengers, who believed that the signal of distress hoisted by the crew of the "Nourmahul" was a feint made by a Southern Confederate Privateer, by whom they would be made prisoners and taken to Charleston.	Nov. 17, 1861 -	A telescope -	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
David Snell, master George Sanders, mate James Pelkerson, seaman Charles Batty Robert Massam Apprentices of the smack "General Havelock."	The smack "General Havelock" was proceeding to the fishing ground, a few miles E.N.E. of the Humber, when she saw signals of distress flying from the schooner "William," of South Shields; bore down to her, and upon boarding her found 8 feet of water in her hold, and the crew exhausted. At great risk, in consequence of a heavy sea, succeeded in two trips in taking off the men and placing them on board the smack, in which they proceeded to Hull. In rendering this service the smack's boat was stove, and her crew lost a week's fishing.	Nov. 19, 1861	10*l.* to be divided amongst them.	Mer. Mar. Fund.
Hans Nielson, master The crew (7 men) of the brig "Charlotte Haye," of Copenhagen. Owners	The "Ocean," of Shields, on a voyage from Sulina to Falmouth, encountered a severe storm, and became so leaky and unseaworthy, that her crew (12 persons) were compelled to abandon her in lat. 42° N., long. 14° 30′ W. They were taken from the wreck by a boat from the "Charlotte Haye" from Leith to Rio de Janeiro, on board which vessel they were received, and subsisted until 25th November, when they were landed at Madeira.	Nov. 21, 1861	A telescope 10*l.* between them 5*l.* 11*s.* for subsistence	Public vote.
Mr. John Graham Patrick Cox Joseph Sinclair Thomas Nicholson John Bradley Nicholas Bradshaw All of Harrington, Cumberland.	The smack "Perseverance," of Douglas, when lying in Ramsay Bay, was run into by a schooner; two of her hands got on board the schooner; the other, a boy, was left in the smack, which drifted out to sea. On nearing St. Bees Head he found the vessel was sinking, and he then took to the boat and made for the beach. On approaching it Cox and Sinclair went into the sea, and brought him safely to shore. The other persons mentioned also rendered assistance, and Nicholson provided the boy with food and dry clothing.	Nov. 25, 1861	Thanks of the Board of Trade. 15*s.* each 10*s.* 5*s.* each	Mer. Mar. Fund.
Hans Leberoth, master Neils Farlianriefen, mate, and 5 seamen, all of the Danish brig "Peter Wilhelm." Owners, for loss of boat	The master of the "Peter Wilhelm" seeing a signal of distress flying from the brigantine "Gem," of Lynn, ran alongside her, and found that she was in a sinking condition, her pumps being choked. He immediately lowered a boat and succeeded in rescuing three of her crew, but in getting them out the boat was stove and lost. He then wore and again ran alongside the "Gem," and by means of a lifebuoy succeeded at great risk in rescuing the master and a boy. This service was rendered about 30 miles E. by N. of Sunderland.	Nov. 25, 1861	A telescope 2*l.* each 7*l.*	Mer. Mar. Fund.
Narcel Labousse Victor Toussaint Inhabitants of the Island of Molène.	The "Phantom," of Guernsey, on a voyage from Terceira for London, with oranges, struck upon the rocks off the Island of Molène in thick weather. As soon as she was seen, Labousse and Toussaint went off in a boat and were speedily followed by other boats manned by inhabitants of the island; but the two men above-mentioned succeeded in rescuing the crew of the sloop and conveying them ashore. Shortly afterwards the vessel broke up.	Nov. 28, 1861	A Foreign Office medal, and 2*l.* 10*s.* to each.	Public vote.

Names of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward granted.	Out of what Fund granted.
J. D. Boer, master of the Dutch ship "Antonia Geertruida."	The "Herculean" struck on some rocks at the north end of Puls Leat in Gaspar Straits, on the 29th Nov. The master and crew took to the boats, and were afterwards picked up by the "Antonio Geertruida," and were treated with great kindness, and taken to Batavia, where they were landed 5 days after their rescue.	Nov. 29, 1861 -	A telescope -	Public vote.
James Jeffries, master -	The sloop "Ann," of Whitby, being in a disabled state, off Skinningrove, was taken in tow by the smack "Hero," who, on finding that she was in a sinking state, lowered a boat, and took the crew off. The sea was then breaking over her, and she foundered shortly afterwards. The shipwrecked men were landed at Hartlepool.	Dec. 4, 1861 -	10*l.* between them -	Mer. Mar. Fund.
William Barham, mate -		- - -		
John Powell - -		- - -		
George Smith, seamen		- - -		
Abraham Turner, boy -		- - -		
All of the smack "Hero."				

Table 32. List of PERSONS (Natives of Great Britain and its Dependencies) to whom Rewards have been granted by FOREIGN GOVERNMENTS, for gallant Services in SAVING LIFE FROM SHIPWRECK, &c., during the Year 1861.

Names of Persons.	Particulars of Services.	Date rendered.	Description of Reward.	By what Government presented.
J. D. Edgell, master of the British ship "Whirlwind."	Saving the crew of the Dutch merchant vessel, "Mathilda Cornelia," wrecked in the China Sea.	April 14, 1858 -	Silver medal and certificate.	Netherlands.
Charter Kinton, master of the British ship "Cicero."	Rescuing the crew of the Dutch coasting vessel, "Annachina Gezina," wrecked in the Bay of Volissos.	March 28, 1860 -	Silver medal and certificate.	Netherlands.
John Westgarth, master -	Saving the crew of the French galliot, "Frederick Gustave."	April 3, 1860 -	Gold medal (2d class) and diploma.	French.
A. Giddes - -		- - -	Silver medal (2d class) and diploma to each.	
Wm. Johnson - -		- - -		
Wm. Moir - -		- - -		
W. Worth, master of the "Hope," of Fowey.	Rescuing the master and crew of the Dutch brig, "Stad Ulissingen," abandoned in the North Sea.	October 8, 1860 -	Silver medal and diploma.	South Holland Institution for the Preservation of Life from Shipwreck.
Crew of vessel - - (4 in number.)		- - -	5*l.* to be divided amongst them.	
Thomas Allen, master of the "Faithful," of Ipswich.	Rescuing the master and crew of the "Alice" of Bath, Maine, United States, treating them kindly, and landing them at Cowes.	Nov. 28, 1860 -	Gold medal.	American.
James Dobson, master of the "Ranger."	Receiving on board his vessel the crew of the wrecked brig "Les trois P," of Boulogne.	- - -	Silver medal and diploma.	French.
Thomas W. Roys, master of the "Pacific," of Liverpool.	Rescuing the crew of the French ship "La Valerie," when the latter was in a sinking state, treating them with great kindness, and landing them at Mogadore.	- - -	Silver medal and diploma.	French.
Mr. John Dower, harbour master, Conche.	Saving, at the risk of his own life, two sailors of the French ship "La Nanine," of Binic, and also a third sailor from a boat.	- - -	Gold medal and diploma.	French.
Mr. John Rosser, harbour master, Swansea.	Assisting in refloating the French ship "Le Notre Dame de Bon Port," stranded at Swansea.	- - -	Silver medal and diploma.	French.

Table 30—*continued.*

Names of Persons.	Particulars of Services.	Date rendered.	Description of Reward.	By what Government presented.
William Cornish, master Thomas Bray John Burgoyne Richard Tuckerman James Cornish Seamen of the "Four Brothers," of Brixham.	Services rendered to the crew of the French ship "L'Augustin."	- - - - - - - - - - - - - - -	Silver medal (1st class) and diploma. Silver medal (2d class) and diploma to each.	French.
Joseph S. Wallis, master of the barque "Sea Wave."	Picking up at sea the mate, 3 passengers, and 16 of the crew of the American ship "David Brown," which had been abandoned when on a voyage from San Francisco for Liverpool; and searching, but without success, for the boat containing the captain and remainder of the passengers and crew.	January 7, 1861 -	Gold medal -	American.
William Morgan, master of the steamer "Mangerton."	Saving the lives of the crew of the French merchant vessel "L'Euphosine," of Cherbourg.	February 11, 1861	Silver medal and diploma.	French.
Helier de Gruchy, Jersey Captain Lecoru, master of the "Alliance," of Jersey. A. Dufen P. J. Manger A. Syvret Jersey.	Rescuing, at peril to themselves, a part of the crew of the French merchant vessel "Cultivateur," stranded near St. Ouen, Jersey, during a violent storm.	March 12, 1861 - - - - - - - - - - - - -	Gold medal (1st class) and diploma. Silver medal (1st class), and diploma to each.	French. French.
Mr. Adam Duffin, French consular agent at Belfast.	For the zeal and ability displayed by him in his official capacity, during 20 years service.	June 28, 1861 -	Gold medal (1st class) and diploma.	French.

PART III.

Containing a PRÉCIS of SPECIAL INQUIRIES into CASUALTIES, ordered by the Board of Trade during the Year 1861.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result
1. **"Empress of India,"** S.S., *of Peterhead,* 450 Tons, Robert Martin, Jun., *Master.* George Martin, *First Mate.*	Foundered in lat. 71° North, long. 2° 25′, on the 20th March 1859.	Inquiry ordered at Aberdeen before Captain Alexander Crombie Gordon, R.N., and Duncan Forbes, Esq., Justices of the Peace for the County of Aberdeen. Commander Wm. Mould, R.N., Inspecting Commander of Coast Guard, Aberdeen, acted as Nautical Assessor.	From the evidence in this case it appeared that the "*Empress of India*" was built at Gateshead-on-Tyne, in 1859, under the "special survey" of Lloyd's Surveyors, for the Greenland whale and seal fishery. The material used in her construction was "crown plate" iron. She was very strongly built, and the workmanship and material first class in every respect, and all means were taken to give her extra strength, especially about the bows, to fit her for the trade in which she was to be engaged. She was also divided into four compartments, with two permanent tanks amidships, and, in addition, had a permanent tank in the fore-peak compartment, completely separated from the others by a watertight bulkhead. She sailed from Lerwick, bound to the Greenland fisheries, on the 10th March 1859, with a full complement of 85 hands, in command of Captain Martin, a master of considerable experience in the northern seas. Nothing important occurred until 9.30 of the 13th March, when the bowsprit was carried away by a heavy sea, the vessel being under close-reefed topsail and fore-topmast stay sail. The severed bowsprit knocked against the bow, but no injury was apprehended. In a few hours the wreck was cleared, and the topmast secured. The ship was making but little water to speak of, and the voyage was continued until about the 17th March 1859, when they arrived at the Bay Ice, 100 miles from the main ice of that year. An increase of water was first discovered in the fore-peak compartment on that day, but caused no alarm. On the next day (the 18th) it was full up to the iron dules. Pumps were then set to work, but pumping was a difficult task, as the compartment was filled with coals, and the water froze as fast as it was lifted. On the 19th the vessel struck a large piece of ice. Shortly after striking it was reported to the Master that the ship was making water fast, and on inspection he found that water was coming in upon the beds that were over the permanent tanks in the vessel's centre. The donkey engine and seven other pumps had been working all night. The waste pipe, which the night before was 2 feet above water, was now discovered to be under water. No injury could be seen in the hull, with the exception that an iron plate in the bow had started for about 14 feet. The Master also states that he had "observed a good many rivets out in a good many parts aft," and that on the previous day he had seen "two rivets fly out," which he attributed to the action of intense cold on the material of the ship. She was white with frost inside and out. Believing it would be necessary to abandon the ship, she was run to the southward under sail and steam, in the hope of falling in with other vessels. All hands were employed in clearing the boats and at the pumps, but the water still continued to gain, and the vessel took a heavy list to starboard. At 2 P.M. the "*Narwhal*" S.S. of Dundee, and soon after the "*Ranger*" of Tonsberg, were sighted, and the Masters of those vessels came on board the "*Empress of India,*" at the invitation of her Commander, to consult with him as to the propriety of abandoning her. In the necessity for abandoning her the Captain of the "*Narwhal*" and "*Ranger,*" as well as the officers of the sinking ship, quite concurred, and they expressed their opinion in a document drawn up at the time. The vessel was then only 6 inches from the sea on the starboard side, and 2½ to 3 feet on the port side. The whole of the crew left the vessel at 3 A.M. on the 20th March. The water was then rushing through the bulkhead into the engine-room, and, as the Master was leaving her, one of the bulkheads gave way with "an awful noise." She went down, stern foremost, at 8 A.M. The Justices reported to the effect that every care and attention appeared to have been bestowed upon the "*Empress of India,*" both by her builders and those who superintended her construction; but they were of opinion that the evidence taken before them respecting the effect of intense frost on the ship tended to show that vessels built of iron were not well adapted for the navigation of the Arctic seas. The shocks she received	Report published.

			from the ice did not appear to be such as would have hurt an ordinary wooden whaling ship, and they could not account for her loss, otherwise than by attributing it to the effect of the frost upon the material of which she was built. Also that, after sifting the evidence with the greatest care (much of it being very contradictory, and the whole of it bearing upon a casualty which occurred at a distant date), they had come to the conclusion that there was nothing in it to show that the vessel was lost by the inattention, fault, or misconduct of the Master, or that he did not do his utmost to save her. The evidence of two of the Engineers was to the effect that repairs which might have rendered her seaworthy were practicable, but untried. No reliance could, however, be placed upon this evidence, inasmuch as the witnesses disagreed materially as to the spot in which the repairs were most required, and contradicted each other on several more important points. An allegation made by the Chief Engineer, that he signed the report upon her abandonment under compulsion, was not supported, nor was it shown that any of the crew were desirous of remaining by the ship. Further, that there were not the slightest grounds for the imputation of insobriety made against the Master, and that there were no grounds for retaining his Certificate. It was therefore at once returned to him, with an expression of strong disapproval of his want of energy in neglecting to secure the ship's log and papers. Several testimonials bearing favourable testimony to the good character of Captain Martin, and to his qualifications as a seaman, were produced from persons of high respectability in Peterhead. With reference to the charge of drunkenness made against the 1st Mate, George Martin, they found that, although he was on more than one occasion the worse for liquor, they saw nothing to lead them to believe that the loss of the vessel could be attributed to his being in that state, nor could it be attributed in any other way to his act and default. They therefore returned his Certificate, but considered him more culpable than the Master in regard to his log, which he does not appear to have made the least attempt to save.	
2. **"Times,"** S.S., *of Leith*, 213 Tons, Alex. McCulloch, *Master*. **"Ben ma Chree,"** S.S., *of Leith*, 103 Tons, Archibald McDiarmid, *Master*.	Collision in Munlochy Bay, half way between Fort George and Inverness, on the 1st October 1860.	Inquiry ordered before the Local Marine Board at Leith, with Captain James Clarke, as Nautical Assessor.	From the facts as reported it appears that the "*Times*" and "*Ben ma Chree*" are two steam ships belonging to different owners. At the time of the casualty they were both bound on a voyage from Inverness to Granton. The "*Times*" left Inverness about 1 A.M. on the 1st October, the "*Ben ma Chree*" following in a few minutes afterwards. When in Munlochy Bay, which is nearly 3 miles in width, the bell of the "*Ben ma Chree*" was rung, and ineffectual attempts were made to pass the "*Times*." At length the "*Ben ma Chree*" struck the "*Times*" on the starboard quarter, damaged her slightly, turned her out of her course, and took the lead. The "*Times*" appears to have yawed backwards and forwards to prevent the passage of her rival, who, however, does not appear to have been justified in keeping so closely in her wake. There was plenty of sea room for either vessel to have passed without interfering with the navigation of the other. From the Report of the Local Marine Board it appears that blame was attached to the Masters of both vessels, but that the misconduct of Captain McDiarmid was greater than that of the Master of the "*Times*." The misconduct was not, however, of such magnitude as to require a suspension of their certificates. The Local Marine Board recommended that both Masters should be warned of the consequences of a repetition of their conduct, and that they should be charged with the expenses of the investigation, viz. 35*l.* 5*s.*; the Master of the "*Times*" paying one third, and the Master of the "*Ben ma Chree*" two thirds of the amount.	Alexander McCulloch and Archibald McDiarmid were reprimanded, and condemned to pay the costs of the investigation, as recommended by the Local Marine Board.
3. **"Enterprise,"** *of Fraserburgh*, 325 Tons, William Gordon Bennett, *Master*. C.C.	Wrecked on a reef in Penny's Harbour, Cumberland Straits, on the 10th October 1860.	Inquiry ordered before Arthur Thomson and John Humphrey, Esquires, two of Her Majesty's Justices of the Peace for the County of Aberdeen, and Commander William Mould, R.N., Inspecting Commander of Coast Guard, Aberdeen, as Nautical Assessor.	The "*Enterprise*" left Fraserburgh for the Greenland Fisheries on the 10th February 1860. Having completed her crew of 45 hands, "all told," at Lerwick, she reached her destination on the 10th March. At the end of April she left for Davis' Straits, arriving there in the middle of May. After fishing some months without success she sailed for Niatlick, in the Cumberland Sound, and having stayed a few days, left it for another harbour where there would be more room for fishing, making for South Keckerton Island, and arriving at Penny's Harbour on the forenoon of the 8th October. The weather was fine at this time, with a moderate working breeze. Penny's Harbour lies on the East side of Cumberland Sound, about 65° 40′ N. latitude, open W. to N.W. by W. by compass, and sheltering from all winds except W.N.W. and N. A reef about 120 fathoms long prevents the swell coming in from this quarter, and another reef about 300 fathoms long to the eastward of that, forming a safe anchorage to those acquainted with it against all winds. The latter reef lies from East to West, has deep water close up to it, and is covered at high tide about 8 feet. On the arrival of the "*Enterprise*" at Penny's Harbour the manager of the fishing settlement went on board and pointed out the best anchorage to the master. The small bower anchor was let go with about 65 fathoms of chain, the best bower not being paid out in case the wind might shift. At 8 A.M. on the 10th it blew a gale, the best bower anchor was then dropped, the cables were regulated, the yards pointed, and all made tight. At 2 P.M.,	The Board of Trade decided that, although the Master's conduct exhibited a great want of energy after the stranding of his ship, there was not sufficient evidence of neglect on his part before the casualty to warrant the detention of his Certificate, which was returned to him with a reprimand for his want of energy and the omission of any statement in his protest as to the burning of his vessel.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result.
"Enterprise," *of Fraserburgh —continued.*			in a violent squall, the small bower started; soon after that the best bower, when more cable was paid out to both, in hope to bring the vessel up, but they did not hold. The ship touched the ground aft, swung to starboard, catching the reef and remaining fast. The gale being heavy no means could be taken to relieve the ship until low water, 8 P.M., when the stream-anchor was laid out to the weather point of the reef to prevent the vessel getting further upon it; the cable was bent on to it and hove tight on board, and it held, the vessel lying with a little list towards the rocks, and broadside on to the reef. Between 11 P.M. of the 10th and 4 A.M. of the 11th it blew a hurricane, and the vessel rolled and thumped against the rock so badly that she commenced making water, but by 6 A.M. she was cleared and left dry on the rocks. An inspection was made, and the keel was found seriously damaged, the ship strained, the butts all open on the starboard side, the starboard bilge all chafed, in holes in some places, the butts of the deck started amidships, one of the main hold beams broken; the trenails started, and the seams open. A report on the state of the ship and the resolution of the officers to abandon her was drawn up and signed by them and Captain Simpson, of the "*Union*," who also assisted in the inspection, it being considered impossible, in that part of the world, and without the materials in their possession, to repair the ship sufficiently even to cross Cumberland Straits, much less the Western Ocean. Nothing appears to have been done until 2 P.M., when some endeavours were made to land stores, but with poor success, owing to the rolling and thumping of the ship, and the boats were nearly all stove for want of a proper landing place. At 4 P.M. the whole of the crew abandoned her, with the exception of the Master, who remained behind some 2 hours longer, in the hope that he might again inspect the vessel at low tide, but he was obliged to leave her at 6 P.M. without effecting this, on account of the darkness. During the night the ship was discovered to be on fire, which continued to burn until she was consumed down to the hold beams, none of the guns, stores, or ammunition being saved. The Master states that the galley and cabin fires were last seen alight by him at 4 P.M., and that both were protected by a pan and standard, and that when he quitted the vessel at 6 P.M. there was no smell of fire. The Court was of opinion that the Master displayed considerable negligence in not heaving on his cables after the ship struck, so as to ascertain whether the anchors had sufficient hold to assist in heaving her off; and also in not having made any attempt to lighten the ship when she came on the reef, even when she was steady, by striking some of her spars. The disaster of the ship's going ashore may be extenuated by the fact that no proper charts of the locality were to be had, and that the spot where the ship anchored was pointed out by persons who declared it to be good. The Court were also of opinion that the Master was to blame in not having made any attempt to communicate with the shore on the morning of the 11th to land stores, which it appeared might have been done during the latter part of the ebb and early part of the flood. Although there are discrepancies in the evidence adduced as to the state of the weather, no attempt was made to save the stores, guns, sails, &c., until 2 P.M., and then only a few casks of provisions were landed. The Master alleges the damaged state of the boats as an excuse; but the Court was strengthened in its opinion that neither he nor the crew exerted themselves to save stores, by the evidence of the Mate, who stated that "he did not know it to be a part of his duty to do all in his power to save the hull and cargo of a vessel on a "reef." The Court stated its opinion that the loss of the ship "*Enterprise*" was caused by the act and default of the Master, and forwarded his certificate to the Board of Trade. The Court, without giving any opinion as to the cause of the ship being destroyed by fire, also expressed its surprise that the Master did not feel himself bound to make mention of that circumstance in the protest made by him at Frazerburgh, his reason being that it was not in the log-book.	
4. **"Vancouver,"** *of Liverpool,* 456 Tons, ISAAC CHAPMAN GALES, *Master.* C.C. 2,053.	Wrecked on the Coast of Brazil, on the 23rd October 1860.	Inquiry ordered at Liverpool, before T. S. Raffles, Esq., Stipendiary Magistrate, and Capt. Harris, H.C.S., Nautical Assessor.	The "*Vancouver*" sailed from Liverpool on the 10th September 1860, bound to Maranham, with a general cargo and 2 passengers. At noon on the 22d October she was in lat. 00° 57′ S. and long. 41° 6′ W. From this position a course was steered S.W. till 8 P.M., when sail was shortened, and a cast of the lead taken, giving no bottom at 100 fathoms. At midnight soundings were again taken, and 38 fathoms obtained; and at 4 A.M. on the 23rd the course was altered to W.N.W., the vessel then being in 13 fathoms. At 6 A.M. the sandhills, known as the "Lescoes Grandes," were sighted, and the ship was hauled to the S.W. to near the land for about an hour, when she bore away W.N.W. as before, and at 9.20 A.M. she struck the ground, but almost immediately came off, losing a part of her false keel. On trying the pumps, it was found she was making water to the extent of 2 feet 4 inches in a short period. A N.W. and by W. course was then steered, till the ship again struck at 11 A.M. At this time St. Ann's Island was made out at a distance of 15 or 16 miles, bearing	Report published, and the attention of the Lords of the Admiralty directed to the state of the Chart of the Brazilian Coast.

			W.S.W.; the ship began to fill fast. The boats were got out, when about 12.30 she again floated, and in order to save her, she was steered right up the Bay of San José. When abreast of the middle of the west side of the Island of St. Ann's, the ship settled down, and became unmanageable. She was then abandoned, the crew and passengers safely landed, and next springs having washed higher up, a considerable portion of the cargo was saved through the instrumentality of the Master. It being the Master's first voyage to Maranham, he had prudently provided himself with a copy of the latest Admiralty chart, constructed from Baron Roussin's survey in 1820, with additions to 1857. On comparing this with two others of more recent date, and private publication, it was found that several shoals mentioned in the two latter were not laid down in the former. It is clear from the result, that the ship was running too near the coast; but as no dangers were indicated on the chart, the Master could not be held responsible for a catastrophe which he might and probably would have avoided by keeping further out to sea, had his chart warned him of their existence. He exhibited due caution, by sounding continually, and, comparing the soundings with the chart by which he navigated the ship, they do not indicate any danger. The Court, therefore, returned Mr. Gales his certificate as Master, in which capacity he had acted for 29 years without a disaster. The Court concluded its report by recommending that the attention of the Admiralty authorities should be called to the apparently defective state of the chart of the Coast of Brazil, especially with reference to the vicinity of the Island of St. Ann's and the approaches to Maranham.	
5. **"City of Lincoln,"** *of Cardiff,* 891 Tons, William Davies, *Master.* C.C. No.	Abandoned in lat. 49° N., long. 34° W., on the 5th December 1860.	Inquiry ordered at Cardiff before Robert Oliver Jones, Esq., Stipendiary Magistrate, and Captain Harris, H.C.S., Nautical Assessor.	The "*City of Lincoln*" sailed from Quebec on 8th November 1860, with a cargo of timber, bound to Penarth Roads for orders. On the 5th December, when about 900 miles from Cape Clear, she became a hopeless, waterlogged, and unmanageable wreck, owing to the effects of continuous severe weather. The crew were thoroughly exhausted with incessant pumping. The whole of the provisions, with the exception of a small quantity of wet bread and 1 keg of water, were washed overboard. Upon the ship "*Arcadia,*" of Liverpool, heaving in sight at this juncture, the Master consulted with his officers, abandoned the wreck, and were received on board the "*Arcadia,*" with the exception of the 2d Mate, who was unfortunately washed overboard The Court was of opinion that the abandonment of the "*City of Lincoln*" under such circumstances was a necessary act, and as no blame whatever could be attached to William Davies, the Master, his certificate was at once returned to him.	Report published.
6. **"Chevalier,"** *of Sunderland,* 214 Tons, John Branagan, *Mate.*	Stranded on the 11th January 1861, on her voyage from Lyra to Patras.	Inquiry ordered before the Local Marine Board, London.	From the report in this case it appears that the "*Chevalier*" was on a voyage from Lyra to Patras, in ballast, with a crew of 9 hands, and on the 11th January she struck on a reef near the Gulf of Patras, when in charge of the Mate, remaining from 10.30 A.M. until 3.30 P.M. On the ship's arrival at the Port of London the Master charged Mr. John Branagan, the Mate, with having wilfully and deliberately run the ship on shore, coupled with continuous disobedience and neglect of duty. The Local Marine Board, having fully investigated the matter, resolved that the charges were not proved, and that no blame whatever attached to the Mate.	Read.
7. **"Prince Alfred,"** S.S., *of Leith,* Tons, George Wilson Craig, *Master.* C.C. 100,126.	Wrecked 2½ miles N.W. of Flamborough Head, on 13th January 1861.	Inquiry ordered at Leith before James Watt and John Macnab, Esquires, two of Her Majesty's Justices of the Peace for the County of Edinburgh, and Captain Harris, H.C.S., Nautical Assessor.	The "*Prince Alfred*" was a screw steam-ship of 170 horse-power, classed A 1 at Lloyds for 12 years. She left Leith at 3.40 P.M. of the 12th January, bound for London, with a general cargo, a crew of 21 hands, and 23 passengers. At the time of sailing the weather was fine, wind W.N.W.; at 9.35 the Fern Islands bore W.S.W. distant 5 miles. From this position a S. ½ E. course was steered for Flamborough Head. Having directed this course to be continued, the Master went to rest at midnight, the weather being bright and clear. From midnight until 4 A.M. the ship was in charge of the Chief Mate. At 4 A.M. the Chief Mate was relieved by the Second Mate. From this time until the time she struck, many deviations were made in the course by the helm being ported, to avoid approaching vessels; the ship after each deviation being brought back to the original course, S. ½ E. only, and no allowance made for these repeated deviations towards the land. At 6.30 A.M. the weather became so misty that objects could not be distinguished at a greater distance than ¾ of a mile, yet the ship retained her speed of about 11 knots until 7.30 A.M., at which time a fog bank, which had previously obscured the land, settled down on the ship. The engines were eased, and the Master called a second time before he came on deck. The look-out sung out "land," when the helm was put hard a starboard and the engines stopped. Almost simultaneously with these orders, the ship struck. The engines were then reversed, when the engineer announced that the ship was bilged, and the engines were finally stopped. The passengers and crew were safely landed, and the ship broke up under the influence of an easterly gale and became a total wreck on the morning of the 14th. As a general rule, with the Fern Islands bearing W.S.W. at 5 miles distant, a S. ½ E. course would take the ship 3 miles East of Flamborough Head; but this course,	Captain George Wilson Craig's Certificate of Competency (100,126) suspended for 3 months.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result.
"Prince Alfred," S.S., *of Leith, —continued.*			however judicious and proper in daylight, was obviously unsafe during a long wintry night, unless the most careful attention was given to the helm. The frequent occasions that occurred for porting the helm on the morning of this casualty must have thrown the ship considerably out of her proper course, and towards the land. At the time the ship struck, the presence of Flamborough Head ought to have been expected, yet the speed was not reduced, nor soundings taken. Had the latter precaution been adopted, the perilous position of the ship would undoubtedly have been ascertained. The Court was of opinion, that the ship should not (especially as the Master had not left orders to be called in a case of emergency) have been left in charge of the Second Mate, but state that although in their opinion such practice was reprehensible, it was nevertheless not unusual. The Court pronounced that the "*Prince Alfred*" was lost by the default of the Master, and forwarded his certificate to the Board of Trade, directing their Lordship's attention to a considerable amount of evidence which established Captain Craig's reputation for care, vigilance, and good conduct of a very high order, and the most favorable testimony to his character borne by the owners of the vessel.	
8. **"Sarah Love,"** *of Sunderland,* 394 Tons, DAVID MOORE, *Master.*	Stranded at the Mouth of Rye Harbour on the 14th of January 1861, and again at Dungeness on the 15th of January 1861.	Inquiry ordered at Greenwich, before James Traill, Esq., Stipendiary Magistrate, and Capt. Harris, H.C.S., Nautical Assessor.	The "*Sarah Love*" left St. Vincent on the 8th December 1860, bound for London with a cargo of West Indian produce, and a crew of 14 hands, "all told." Her Master, David Moore had been 21 years at sea, the last 6 years as Commander. She made Beachy Head at 6 P.M. on the 13th January. At 9 P.M., the wind being S., the ship was heading E.S.E., and going 5 knots, Beachy Head Light distant about 15 miles, and bearing E.N.E., or, as the Master afterwards stated, N.N.E. At this time the Master went below, leaving instructions with the Mate to keep the ship E. by S. till the light on Beachy Head should be N.W. He was called at 12 o'clock, and informed by the Mate that at 11 P.M. Beachy Head Light bore N.W., and that the ship was then kept away E. by N. These courses were proper, supposing they were made good, and that no tide was setting the ship in towards the land. The tide, however, would at that spot begin to ebb at 1.30 A.M., and consequently would be on the starboard bow, retarding the ship's progress, and gradually forcing her towards the shore. At 12 o'clock the Master says he concluded in his own mind that at 11 P.M. the ship must have been 25 miles from Beachy Head, bearing N.W. How he came to this conclusion cannot be conceived, as he must have learnt from the Mate that at 11 P.M. Beachy Head was distant about 12 miles, and as he admitted that at 9 P.M. she was 15 miles from that point, bearing E.N.E. or N.N.E., she must have made 25 miles at least in these 2 hours, although he was aware she was making only 5 knots. At 2 P.M. of the 14th, the ship having kept an easterly course since midnight, a light was observed bearing E. by S., 2 points on the starboard bow. This was at first taken for a ship's light, but after watching it for some time, and repeatedly examining his chart, the Master came to the extraordinary conclusion that it must be the light on Cape Alpec, on the French coast near Boulogne, and the still more extraordinary reason he gives for this supposition was that he did not think he could be so far E. (being in 8 fathoms) as that it could be Dungeness, yet, taking it to be Cape Alpec, it would have placed him, as he should have known, 25 miles further E. than Dungeness. Labouring under this extraordinary delusion, at 2.15 A.M. he put the ship about to the northward, running about an hour in that direction, notwithstanding the soundings were gradually shoaling from 8 to 4½ fathoms, which of course could not have been the case had the ship been on the French coast. At 4 A.M. the ship took the ground off the mouth of Rye Harbour, where she lay without any serious results, owing to the moderate state of the weather and the nature of the ground. At noon of the 14th the ship was towed off, and resumed her voyage. The Master being at this time aware of his inability to conduct the vessel, states that he made signals for a pilot, but without success, and he would have acted prudently if he had not proceeded without one. But as the weather was favourable, and he had Dungeness Light to steer by, there was not much reason to apprehend a second disaster. At 1.30 A.M. of the 15th he came on deck, and for the first time got sight of Dungeness Light. The Mate had observed glimpses of it after 12 o'clock. At 1.30 A.M. it bore N.E. 2 points on the port bow, the ship's head being N.N.E., the wind at E., and the shore distant 6 to 7 miles. The light was rounded at 3 A.M. 1½ miles off the land, and the ship tacked out in 16 fathoms, the light bearing N.W. about 2½ miles. She stood on the port tack, heading S.S.E., till 5 A.M., when she was tacked in shore in 20 fathoms, and the main yard brought to the mast to wait for daylight. The Master supposed his position at this time to be 16 to 18 miles off Dungeness; again exhibiting his loose way of computing distances. By his own showing and reckoning the rate of sailing at 4 knots, he could not have been more than 8 to 10 miles distant, if so much. He was equally ignorant of the state and direction of the tide;	The Certificate of Competency of David Moor was cancelled, and permission given him to present himself for examination for a similar Certificate at the end of 12 months.

			supposing the ebb to be setting to the eastward off Dungeness, whereas it was setting strongly to the westward, during the hour and a half the ship was lying to, which would fully account for what followed. At 20 minutes to 7 he said he sighted Dungeness, the light being W., the soundings gradually shoaling from 20 to 14 fathoms. Immediately on getting sight of the light he furled the sails, and gave orders to "bout ship," but before this could be done she struck. A seaman gave a different account of this. He states that when he took the wheel *at 6 A.M. he saw what he believed to be Dungeness Light* on the port quarter, that the main topsail *was full* before he went to the wheel, and that while he was there he kept her "full and by" till she struck; that about 20 minutes past 7 the Master came to the wheel, and said the light bore S.W. by W.; that he could see the land distinctly at that time, stretching from Dungeness on the port quarter right on to the starboard bow; that he told the Master so, and thinks that the Master admitted he saw it also. This appears the most probable account, and that the light was visible, and its bearings ought to have been noticed by the Master, certainly for more than an hour before the ship struck. Even supposing he did not see it before the hour he mentions, there was still time for him to have put about, or heave up so as to escape the danger. The Court was therefore of opinion that the stranding of the ship on the morning of the 14th of January off Rye Harbour, and again on the morning of the 15th off Dungeness, and the very serious damage sustained, were caused entirely by the "wrongful acts" and "defaults" of the Master. There was no ground for imputing to the Master either wilful misconduct or evil design, though his incapacity displayed in the navigation of the ship under circumstances so little calculated to cause danger deserved serious reprehension. His Certificate of Competency was transmitted to the Board of Trade.	
9. **"Hardy,"** *of Glasgow,* 374 Tons, JAMES MACKENZIE, *Master.* C.C. No. 14,427.	Wrecked on Freshwater Ledge, near Kimmeridge, Dorset, on the 20th Jan. 1861.	Inquiry ordered before Nathaniel Bond and Oliver W. Farrer, Esquires, two of Her Majesty's Justices of the Peace for the County of Dorset, and Capt. Harris, H.C.S., as Nautical Assessor.	The "*Hardy*" sailed from London, bound to Demerara, on the 13th January 1860, with a crew of 17 persons, "all told," a general cargo, and 3 passengers. At 6 P.M. on the 19th January, the Needles bearing N.E., and Durleston Head N.W., she tacked to the southward and eastward, the wind being S.W., and so continued until midnight, making on an average 5 knots. At midnight she was tacked to the northward and westward, her head being then towards the land, and was kept in that direction until she struck at 8 A.M. Shortly after midnight a thick fog set in, which continued some hours after the casualty. The Master had not before navigated the English Channel, and was ignorant of the peculiar set of the tides in the dangerous vicinity of St. Alban's Head. He was constantly on deck during the night, frequently consulted his chart, but neglected the precaution of using the deep sea lead, attention to which, in connexion with the soundings on the chart, would have warned him long before making the land of the dangers he was approaching. The hand lead only was used, which was insufficient to produce such a result; one cast only in 19 fathoms was obtained immediately before the ship struck; but there is great reason to doubt its accuracy, as no such soundings are recognized within the transit line from St. Alban's Head to the Bill of Portland. The Master accounts for the disaster by stating that he must either have overrated his distance on the offshore, or underrated it on the inshore tack; that he was unaware the ebb tide set in so strongly; that making only 2 to $2\frac{1}{2}$ knots when approaching the shore, and the water not being deep, he had confidence in the lead he used, and did not consider the use of the deep sea lead necessary. The Court were of opinion that the Master, being ignorant of the Channel, and the set of the tide in that particular part of it, was guilty of a grave omission, in the position in which the ship was, and (reaching in so many hours) in neglecting to use the deep sea lead, and that the omission to get correct soundings was the cause of the loss of the ship; and that as the ship was lost by the default of the Master, they forwarded his certificate to the Board of Trade, stating that, with the exception of the unfortunate omission before named, his conduct was entirely active and vigilant.	The Certificate of Competency (No. 14,427) of Mr. James Mackenzie suspended for six months.
10. **"City of Lucknow,"** *of Glasgow,* 888 Tons, FRANCIS BROWN, *Master.* WILLIAM FERRIER, *Mate.*	Stranded on the Salt Pan Rocks, near the entrance to Belfast Lough on the 9th February 1861.	Inquiry ordered at Belfast before W. S. Tracy, Esq., Stipendiary Magistrate, and Commander William Swinburn, R.N., Inspecting Commander of Coast Guard.	The "*City of Lucknow,*" 2 years old, and classed A 1, 13 years, was an iron vessel. She was bound to Calcutta with a crew of 27 hands, "all told," a general cargo, valued at 112,000*l*, and 5 passengers. Before leaving, she was swung for the proper adjustment of her compasses. She left Greenock at 4 P.M. on the 8th February, assisted by a tug, which cast her off at Cumbrae Heads at 8 P.M. Sail was then made, top-gallant sail, fore and main, and courses; in fact all plain sail. The weather was fine; the wind E.N.E. Soon after midnight the Chief Mate came on deck to relieve the Master, who before going below sighted the Point of Corsewall Light, which bore at 12.30 A.M. S. by W. (magnetic). The ship's position was then pointed out to the Mate by the Master on the chart, together with the course then being steered, and the way the ship's head lay. The Mate was directed to steer the same course, S.W. $\frac{1}{2}$ W. by compass; to call the Master when the lights on the chart, *i. e.*, the Maidens and Copelands, were first sighted. The Mate was also directed to keep a sharp look-out. Corsewall Light was 9 miles distant at this time (12.30 A.M.) The Master feeling cold and slightly unwell, partly changed his clothes, and fell asleep, from which he was not disturbed until about 3 o'clock. In	The Certificates of Competency of Francis Brown, the Master, and William Ferrier, the Mate, suspended for one year.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result.
"**City of Lucknow,**" *of Glasgow,* —*continued.*			the meantime the Mate continued the course S.W. ½ W. until 1 o'clock, the ship running about 9 knots. At that time he states he saw the Maiden Lights; they bore W. by compass distant 12 to 14 miles. The weather was then cloudy, and he *altered the course* about ½ a point, so as to get the ship's head past Copeland Island, about ½ a point further S.W., and keep her more clear of the Irish Coast. This course was continued until the Master was called, which was about 3 A.M., when he was informed that the Copeland Light was sighted off the starboard beam. The Master directed the course to be altered to S.S.W., and on reaching the deck discerned the light, but had a doubt about its being the "Copeland," from the Mate's statement that he had just lost sight of the "Maidens." Such doubt was not attributable to the colour or appearance of the light. The Master looked for the light a quarter of an hour after, but could not see it. Shortly after a heavy sea took the ship by the stern; the look-out man sung out "land on the weather bow"! The helm was put hard up, but she went ashore on the Saltpan Rocks, and turned on her broadside. The efforts made to get her off proving useless, the lifeboat was got out, and in 3 trips all were landed in safety, with one exception, in the teeth of a high wind and heavy snow showers. The Master states that he had every reliance on the Chief Mate's conduct; that he did not expect to remain below more than one hour, as he expected to sight the Copelands by that time; and that the necessity for going below arose from feeling cold and tired, and having a headache. It is not usual for a sail of 8 hours to produce these results, and the Court was of opinion that circumstances of a far more trying nature only would justify a Master in leaving the deck of his ship in narrow water, in unsettled weather, and on the first night of a voyage; and that had he continued in the exercise of his important trust he would doubtless have looked to his reckoning, consulted his chart, and perhaps hove his lead (which was not done at all during the voyage), and by this simple but necessary vigilance have avoided a calamity involving so lamentable a loss. But to the default of the Mate, William Ferrier, the disaster in question must be mainly ascribed. Yet whether to attribute it chiefly to misapprehension of orders not perhaps sufficiently clear, ignorance of seamanship, or culpable indifference in the discharge of his duty, is not easy to determine. He had sailed 8 years with the Master, appeared an intelligent and ready man, and possessed the entire confidence of his owners. From the time when the course was laid down for him by the Master he should have sighted the Copelands within an hour, and not having done so should have called the Master, although not specifically directed to do so; but omitting this, he kept on at a rapid rate *for 2 hours longer*, and then mistook a shore light for it. Some doubt exists whether the strong ebb tide on the ship's bows had been sufficiently allowed for by the Master, or duly reflected upon by the Mate. Half an hour after he had received his instructions he altered the course ½ a point, to avoid the Copelands, and in doing so he committed a grave error, and exhibited an independence of action and a disregard of legitimate authority not warranted by the circumstances; for if they had required an instantaneous change he should at once have informed the Master of it. The object of the change in this instance appears unaccountable, and its execution indefensible; and the only justification attempted was that he made the alteration to avoid going on an island, the light on which he was on the look-out for, but could not discover. His conduct after the wreck appears to have been self possessed and seamanlike, but that, although highly creditable, was no atonement for the loss of life and property which his recklessness or want of judgment had at least in part occasioned. The Court was of opinion that the S.W. course given by the Master at 12 o'clock or thereabouts was correct; but that if he had intended to have remained absent from deck more than an hour he should have ordered the Mate to have called him when he sighted the Copelands, or when he had run 10 miles, when a channel course could have been taken. It also appeared that the power of the ebb tide had not been cared for, as it should have been, by either Master or Mate, and that neither of these officers had a correct idea of the rate of sailing; the Master supposing it to be 8 knots, while the Mate thought it was 11. But it was evident that the ship was going even at a greater rate than estimated by the Mate, inasmuch as the distance in a straight line from the spot where the bearings of the Corsewall Light was taken to the rocks upon which she struck was 30 miles or nearly, and according to the Master's note of time she had run that distance in 2½ hours. That both Master and Mate were culpable, in not clearly ascertaining the speed the ship was running, is unquestionable, and their unsatisfactory excuse for so important an omission of duty was "that the second glass could not be found." Considering the darkness of the night, and the uncertain state of the weather, it was manifestly imprudent to carry so much sail in narrow water, and the Court conceive both Master and Mate to have been culpably remiss in not heaving the lead during the entire voyage. Their Certificates were transmitted to the Board of Trade, together with testimonials from their owners, certifying to their trustworthiness and hitherto blameless professional conduct.	

11. **"Lyra,"** S.S., *of Londonderry*, 350 Tons Register, WILLIAM INCH, *Master*. C.C. 100,314.	Wrecked on the Oyster Bank, near Fleetwood, on the 13th February 1861.	Inquiry ordered before Edmund Birley and T. Langton Birley, Esqs., two of Her Majesty's Justices of the Peace for the County of Lancaster, and Captain Harris, H.C.S., Nautical Assessor.	The "*Lyra*" paddle-wheel steam-ship sailed from Belfast, bound to Morecambe, on the evening of the 12th February, laden with a valuable general cargo. On the 13th, at 7.30 A.M., Walney Light bore E.N.E., distant 5 miles as computed by the Master, but 2½ miles as reckoned by the Mate. From this position a course was steered S.E. by S. till an object was seen on the south shore near Fleetwood. The weather was somewhat hazy, which rendered it difficult to define distant landmarks with precision. The object before mentioned was taken to be the Pile or Wyre Lighthouse. It was first seen on the port bow. The course was not altered for 15 minutes, although, if bearings had been taken at the time, they would have shown it could not have been the Wyre Light. The vessel proceeded at full speed (9½ knots); and on a nearer approach the object turned out to be the Rossall landmark. The Master then gave directions to haul out more to the eastward in the hope of getting into his proper course up Lune Deeps, over which he had passed. The ship then struck; she quickly filled, and sunk not far from the spot where she first struck. The usual course for a vessel proceeding to Fleetwood or Morecambe across the bay from Walney, is to get soundings in Lune Deep, particularly if the weather be so hazy as to obscure the distant marks, a precaution which, in this instance, was entirely neglected. Nor does it appear that the engine was slowed, or any of the prudent means usually adopted on entering an intricate channel. Even when the Master discovered the error he had made in mistaking the Rossal landmark for the Wyre Light, he continued full speed in the hope of regaining the deep channel,—a proceeding which in all probability precipitated the loss of the ship, for it appeared that at that time, although she was in shoal water, the vessel had not actually struck. The Court was of opinion that the "*Lyra*" was lost through the default of the Master, and forwarded his certificate to the Board of Trade. It was elicited in the course of the inquiry that Walney Light and Rossal Beacon were under the control of the St. George's Quay Commissioners at Lancaster, and that *formerly* a buoy was placed on the S.W. prong of the Oyster Bank. The evidence given by a pilot was also to the effect that numerous small vessels had been lost on the spot where the "*Lyra*" grounded. He also stated his opinion that the restoration of the buoy on the Oyster Bank would prove very serviceable when the landmarks were not easily distinguishable.	The Certificate of Mr. William Inch, the Master, suspended for 12 months; and the Commissioners of St. George's Quay communicated with as to the want of proper buoyage in the Lune Channel.
12. **"Danube,"** *of Belfast*, 989 Tons, WILLIAM HEASLEY, *Master*. C.C. 1399. WILLIAM ROSSITER, 1*st Mate*. C.S.	Wrecked in Cardigan Bay, 6th March 1861, and one life lost.	Inquiry ordered at Liverpool before T. S. Raffles, Esq., Stipendiary Magistrate, and Capt. Harris, H.C.S., Nautical Assessor.	The "*Danube*" left New Orleans, bound to Liverpool, on 1st February 1861, with a crew of 26 hands, "all told," and a cargo consisting of staves and nearly 3,000 bales of cotton. By the reckoning she was abreast of Tuskar, 17 miles distant, at noon of the 5th March. From this period till 8 P.M. a proper channel course for Liverpool was steered, and the distance run from 50 to 55 miles. At 8 P.M., for some reason which the Master was unable to explain further than by the supposition that he was approaching the Irish coast too nearly, he wore ship and stood back to the southward and eastward, upon which course he continued until 6 A.M. on the 6th, when land was discovered, which the first Mate considered to be Strumble Head, in the southern part of Cardigan Bay. From 4 to 6 A.M. the Boatswain was in charge of the watch, the first Mate being ill. At 6 A.M., instead of hauling the ship up on the port tack to weather Bardsey Island, she bore up on E. and N. courses, running further into the bay, until 11.30 A.M., when a red buoy was seen two cables length on the starboard or lee bow. All sail was then made to work out of the bay, but breakers were shortly after seen on the lee bow. No attempt was made either to stay or wear the ship, but the anchor was let go, and she immediately struck. During the afternoon she drove over the reef, and got once more afloat, with 5½ feet water in her. She then began to drive, when a second anchor was let go, but she grounded again and became a complete wreck. The pinnace was swamped, and the long boat with 8 men drifted away from the ship, and on landing, one of them was drowned. The Criccaeth life boat saved the rest of the crew. The Court were of opinion that the "*Danube*" was lost by the default of the Master. This inexplicable conduct in altering his course at 8 P.M. on the 5th, when in a fair way to reach his port in a few hours, cannot be accounted for otherwise than that he was strangely ignorant of his position. He exhibited a culpable indifference in allowing the Boatswain to be in charge of the morning watch, while the ship was gradually shoaling her water; and his subsequent conduct in steering easterly courses after he had made the land, is equally unaccountable, as by so doing he lost the only chance of gaining the fair way of the channel. The conduct of the Chief Mate was also considered most reprehensible, inasmuch as he appeared to have been acquainted with the land, and did not counsel the Master to avoid the fatal courses that he pursued for 5 hours. The Court therefore considered that he aided, by his default, in the loss of the ship, and forwarded the Certificates of the Master and Mate to the Board of Trade.	The Certificate of Competency of William Heasley, the Master, suspended for 12 months. William Rossiter, the Chief Mate, was severely reprimanded, and his Certificate returned to him, with an admonition as to his future conduct.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result.
13. "**Aurora,**" *of Padstow*, 288 Tons, John Couch, *Master*. C.S.	Wrecked on a voyage from Venice to Queenstown and Falmouth on the 15th March 1861.	Inquiry ordered at Greenwich before James Traill, Esq., Stipendiary Magistrate, and Capt. Harris, H.C.S., Nautical Assessor.	The "*Aurora*" sailed from London on 6th December 1860, with a general cargo, and a crew of 11 hands, "all told," bound for Trieste and Venice. She left Trieste on her homeward voyage on the 6th March, laden with wheat. The island of Lagosta was sighted on the 8th at 8 A.M., distant 20 miles, and bearing N. From this point a S.E. course was steered until 1.15 A.M. on the 10th, when she went ashore at Point Cataldo, midway between Brindisi and Cape Otranto, taking the ground on a flat rock, with a depth of 10 to 13 feet of water. After remaining a few hours on this rock, she then drifted into a small bay, and grounded on the main. Here she remained until the 13th, when, having been lightened by discharging part of her cargo, she was hove off, and on the 14th proceeded about 8 miles in the direction of Brindisi, with assistance of boats from the shore. The wind falling calm, she came to an anchor at 1 P.M. of the 14th, off Torra Rinaldo, and the Italian pilot and boatmen, after quarrelling with the Master, left her. The Master and crew also left her about 3 P.M., after furling the sails, letting go a second anchor, and veering 40 fathoms on one anchor and 60 on the other. The reason assigned by the Master for thus deserting the ship was the threatening appearance of the weather, which came on to blow about 6 P.M., and continued a strong gale during the night, notwithstanding which, according to the crew, the ship rode safely, and showed a bold side next morning. The Master, however, states that she was very low in the water, and that he thought she would go down at her anchors. The Carpenter states that the ship was kept free during the morning of the 14th, and that the pumps were not sounded before the desertion. On the morning of the 15th, the wind still continuing, the Master authorized some Italian boatmen to go on board, and if they found the water increasing to slip the cables, and let her run ashore. The Master stated that he did not decide on this course until the crew and the boatmen had positively refused to go with him and keep the ship afloat, until she made Brindisi. The crew stated they offered to go, but that the Master said he would not venture for the value of the ship and cargo. The fact of the Master permitting the Italians to go on board without him, and slip the cables at their discretion, does not tend to confirm the truth of his willingness, and the crew's refusal to go on board. As soon as the Italians went on board they slipped the cables, without examining the state of the ship, when she came on shore, and became a wreck. From these facts two questions arise; firstly, was the ship's stranding on the 10th caused by the Master's wrongful act and default? and, secondly, was he justified in abandoning the ship on the 14th March for 24 hours, and then causing her to be sent on shore, without going himself on board to judge of the absolute necessity of so desperate a measure? With respect to the first question, as neither the Master or crew could speak to the courses steered, the only information to be got was from the log, and the entries in that were scanty and imperfect. One of two things seemed certain; either the entries in the log book were not made until after the ship stranded, or the Master could not have paid proper attention to them on shaping his courses for the 24 hours before the ship struck. If the entries had been made, and carefully compared with the chart, he would have known that the land should have been visible on his port side, for the greater part if not the whole of the 2 days after passing Lagosta, as the weather was clear; but as he stated he did not see the land, or only so indistinctly as not to know it from mountains or clouds, the conclusion must be that he was considerably more to the westward than would appear by his reckoning, and in that case should have paid more attention to a light seen and reported on the starboard quarter, and have been warned by the danger in time to escape it; whereas he assumed his position at the time of the accident to be inside the island of Saseno, on the opposite side of the Adriatic. The Court were therefore of opinion that the stranding of the ship on the morning of the 10th March was caused by the "default" of the Master. With regard to the second question, the abandonment and final destruction of the ship, the Court considered that neither the Master's own account nor the statements of the crew justified such a measure. The ship had been floated off the beach without difficulty, and the water kept under for 2 days without any extraordinary exertion, and it was reasonable to suppose that by continuing the same means she might have been conducted safely to Brindisi, a distance of only 10 or 11 miles; nor was there any reason to suppose that the crew, if properly encouraged, would not have performed their duty in this respect, while it was evidently their interest to do so. But even supposing the possibility of the ship's being taken to Brindisi was doubtful, or that the crew could not have been persuaded to assist in taking her there until after the gale had abated, the Court considered that the Master acted wrongfully as well as dastardly in staying on shore, and authorizing the natives, who had all along shown great desire to make wreck of the ship, to go on board, and slip her cables at their discretion. His pretensions that he offered to go on board and stick by the ship if others would, are entitled to little credit, when it is proved that he shrunk from the much lighter risk of merely going on board for a few minutes, for the purpose of satisfying himself	The Certificate of Service of the Master, John Couch, was cancelled.

			whether she would continue to float. The Court therefore considered that the Master's directing the Italians to go on board and slip the cables was an abandonment of the ship, and in all probability the cause of her being wrecked, without any necessity, and forwarded his certificate of service to the Board of Trade. Although it did not appear that the Master was intoxicated at the time the ship stranded, the evidence of the crew (with one exception) was to the effect that during the voyage he was frequently in a state of intemperance.	
14. **"Idalia,"** *of Yarmouth*, 280 Tons, JOHN PLOWMAN WARD, *Master.*	Stranded at Holy Island, near Lamlash, Arran, on 21st March 1861.	Inquiry ordered before the Local Marine Board, Greenock.	The "*Idalia*" left Glasgow on the 5th March, bound to Havre with a cargo of iron, and whiskey, and a crew of 11 persons, "all told." She put into Lamlash on the 12th, and remained until the morning of the 19th, when she resumed her voyage, and on the afternoon of that day the Master became intoxicated, and otherwise misconducted himself. At noon on the 20th, when approaching Holyhead, the vessel was put about and stood towards the Irish coast, when the cargo shifted in consequence of the bad weather, and the Master was not in a state to attend to his duty, or take charge of the ship; neither does it appear certain that the ship's position was accurately known. On the afternoon of the 21st the ship was again off Lamlash, when the Master directed her to be put in the harbour at that place, and in endeavouring to enter it, a heavy squall laid her off, causing her to take the ground, and lay fast. The Master then ordered the crew to leave her, which they did. A line had been made fast to the boat, one end being carried ashore, and the other to the windlass. As the boat was proceeding, the Master cut the line, which caused her to fall broadside to the sea, and being loaded with seamen's clothes she filled on touching the rocks, and prevented their returning to the ship that night, which it appeared was their intention, after seeing their clothes in safety. The Master appeared, from the evidence, to have been drunk, and incapable of doing his duty during the whole of this time; but there was nothing to show that the conduct of the crew had been otherwise than good. On the 22d the ship was towed off, and anchored at Lamlash, and the Master was discovered by a coast guard man loading a revolver, which he forced from him. On the 23d the ship was towed to Ardrossan to be docked. The Local Marine Board did not attribute the stranding of the vessel *directly* to the fault and misconduct of the Master, but they found him guilty of great misconduct and drunkenness from the time the vessel left Lamlash on the 19th March, until she was taken into Ardrossan on the 23d of that month. They forwarded the certificates of character laid before them on his behalf, and recommended a suspension of his certificate until he gives proof of amended habits.	Mr. John Plowman Wood's Certificate of Competency (No. 1,733) cancelled.
15. **"Star of the East,"** *of Liverpool*, ALFRED GRAYSTON *Master.* C.C. 12,473.	Wrecked on the Southern Coast of Africa, 20 miles westward of Cape Infanta, on the 9th April 1861.	Inquiry ordered at Liverpool before T. S. Raffles, Esq., Stipendiary Magistrate, and Captain Harris, H.C.S., as Nautical Assessor.	From the facts brought out in evidence it appears that the "*Star of the East*" left Bombay on the 11th February 1861, with a crew of 29, all told, and a general cargo of Indian produce, bound to Liverpool. A course was shaped for the Mozambique Channel, which kept her near the eastern coast of Africa, where she met with strong and favourable currents. From previous experience, the Master was well acquainted with these currents. At noon of the 9th April Cape Infanta bore N.N.W. distant 20 miles. The wind being moderate enabled them to make a good reach into the land. At 6.15 P.M. it was decided to tack off shore for the night. The helm was accordingly put down, but the wind dying away, and the swell taking the ship on the bow, she missed stays. Some time elapsed before her head could be got off, and an attempt was made to wear, but in the act of wearing she struck on an outlying reef of rocks, and eventually became a total wreck. The coast was of such a nature that a landing could not be effected. Between 2 and 3 A.M. on the 10th the crew were compelled to leave the ship, as the sea was washing over her, and her decks had parted. On the same day they reached Port Beaufort in the boats. No lives were lost, and a fruitless attempt was made to save the vessel and cargo. The report of the Magistrate is to the effect that the Master had been 22 years at sea, 5 of which were spent in the coasting trade between Cape Town and Port Natal; that as regards the present casualty the Master's local knowledge, and the fact of his laying up so well at the time, induced him to stand in somewhat closer than was consistent with strict prudence; but as he expected a land wind at sunset (an expectation justified by his previous experience), and felt confident, as he reasonably might, that his ship would stay, her loss may be regarded rather as an unforeseen calamity than an error of judgment amounting to a default." No want of sobriety or culpable neglect was proved. The Master's certificate of competency was returned to him, with the expression of a hope that the disaster by which so valuable a ship and cargo were lost would be a caution to him in future.	Report published.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result.
16. **"United States,"** S.S., *of Glasgow*, 197 Tons, William Meiklereid, *Master*. C.C. 17,724.	Lost upon the Bird Rocks, in the Gulf of St. Lawrence, on the 25th April 1861.	Inquiry ordered at Glasgow before James Craig and A. McLellan, Esquires, two of Her Majesty's Justices of the Peace for the County of Lanark, and Capt. Harris, H.C.S., Nautical Assessor.	The "*United States*" was a screw steamship built of iron in the year 1860. She sailed from the Clyde on the night of the 13th April, bound to Quebec and Montreal, with 87 passengers, a cargo computed at 600 tons, and a crew of 50 persons, "all told." At 3 P.M., on the 24th April, Cape Race, at the entrance of the Gulf of St. Lawrence, was made, bearing N.E. by E. ¼ E., distant 27 miles. At 7.30 P.M., St. Paul's Island was sighted, and at 9 P.M. the Northern Lighthouse upon it bore S. ½ E. (true), distant 18 miles. A course was then shaped N. and by W. ¾ W., and the Master went below, giving directions to be called at 1 A.M., or before, if any change of weather took place. The ship was under full steam with all plain sail and lower and topmast studding sails, and running about 11 knots; weather clear; fine fresh breeze, and moonlight. The Master was called at 1 A.M. by the Second Mate, and that officer was instructed by him to keep a sharp look out for the Bird Rocks, as "they might shortly expect to see them on the port bow," and if so, "to pass them on the "starboard side." 20 minutes after the Mate discovered them 2 points on the starboard bow, and at a distance (as he computed) of 5 to 6 miles. The helm was immediately ported, and the ship went off 4 or 5 points, bringing the wind on the starboard quarter. The Master, on being informed what had taken place, came on deck and took charge; shortly after he put the helm to starboard, which brought the ship's head to land; after the lapse of a few minutes the helm was again ported, and in the act of going off the ship struck. This was a few minutes after 2 A.M. The loss of this new and valuable ship can only be attributed to the injudicious attempt to round the Bird Rocks too closely, a proceeding still less excusable as the whole Gulf of St. Lawrence, 78 miles in width between these rocks and the Island of Anticosta, was open. The Bird Islands were perfectly visible; the weather good; the wind fair. No bearings were taken, neither were the engines slowed, or soundings taken while passing these dangers. The chart by which the ship was navigated contained a caution to the effect that "in entering the Gulf of St. Lawrence with a S.E. wind" (the quarter from which the wind actually blew) "a westerly current might be expected." This, however, appears to have been disregarded, and may account for the fact of the Bird Rocks having been made on the starboard instead of the port bow, as was expected. Nor does the distance at which the ship was presumed to have been from St. Paul's Lighthouse at 9 P.M., appear to have been accurate. But assuming it to have been correct, the prudence or necessity of making the Bird Rocks at all, with the whole width of the Gulf open, cannot be discovered; by giving them a wide berth, the voyage would have been inconsiderably prolonged. The loss is, therefore, attributed to a grave default on the part of the Master, and his certificate was forwarded, to be dealt with by the Board of Trade, accompanied, however, by a recommendation to their Lordships to impose a lenient sentence, on the ground of his previous good conduct.	The Certificate of Competency of Mr. William Meiklereid, the Master, suspended for 8 months.
17. **"Canadian,"** S.S., *of Montreal*, 1,926 Tons, John Graham, *Master*. C.C. 4,406.	Foundered 5 miles N.E. of Cape Bauld, Straits of Belle Isle, 4th June 1861. 29 lives lost.	Inquiry ordered at Liverpool, before T. S. Raffles, Esq., Stipendiary Magistrate, and Capt. Harris, H.C.S., Nautical.	The "*Canadian*" left Quebec on the 1st June, with a crew of 97 persons, "all told," 112 passengers, the Mail Master, and a cargo of wheat and flour. On leaving the St. Lawrence she ran for the Straits of Belle Isle. At 9 P.M. on 3rd June, the weather being dark and much ice about, her head was put westward and kept within sight of the light on Point Amour all night. At daylight on the 4th she proceeded through the Straits, meeting with and avoiding large masses of ice. At 8.30 A.M. she was abreast of Belle Isle, and the wind had increased to a gale from the S. About 9.30 A.M., at some distance outside the Straits, the field ice was closely packed, and the engines (which had been mostly at half speed), being impeded, her head was put to the westward, and she steamed slowly back to the Straits, to await fairer weather and clearer water. Pursuing this return course until 11.30 A.M., the Master then found he must pass through a narrow passage with heavy ice on the starboard hand, and an apparently small patch of field ice just awash on the port hand. The speed was from 4 to 5 knots, and in passing the floe it struck her on the port side under water a little before the fore-rigging, scraping along a distance of 60 feet. The concussion was slight, and no damage was apprehended, and the Master was on the bridge, where he had remained from 8 P.M. the day before, to pilot the ship through the ice. Shortly after, the water was found rushing up the fore hatchway into the steerage. The Master, concluding from this that a serious accident had happened, gave orders for the boats to be got ready, and made for the nearest land (Cape Bauld) then in sight. In 10 minutes the ship was fast settling by the head, and the water had found its way into the engine-room through the stoke-hole door, although it had been secured by stanchions, to prevent such a mishap. The ship then took a list to starboard, and, the water rushing over the bulwarks, her loss became inevitable; her engines were stopped, and the boats lowered; seven boats were let down in safety, but the eighth, by some unfortunate accident, hung to the foremost tackle, and the ship went down 5 miles N.E. of Cape Bauld in 45 fathoms. 181 persons were saved by the seven	Report published, a copy forwarded to the Colonial authorities.

			boats and some French fishing boats, to whom signals had been made, leaving 29 persons unaccounted for. There can be no doubt that the ship was lost by contact with the ice; but how her bottom became so immediately and seriously affected by the concussion does not appear, nor was there time to ascertain the nature or extent of the injury she had sustained. No fault could be found with the Master, officers, or crew; all ably discharged their duties, and acted in a manner worthy of British seamen in so fearful an emergency. The prudence of taking the passage by the Straits of Belle Isle at this season appears to be somewhat questionable. The regulations of the Company to which the "*Canadian*" belonged leaves that course to the discretion of the Master after the 20th of May in each year. The Master appears to have consulted his owners as to the propriety of such a step, and to have been justified by them in taking that course, although *no reliable* information had reached Quebec before the "*Canadian*" sailed, to prove that the Straits were open, or that the ice had dispersed at the eastern entrance. Vessels belonging to the same Company had traversed the Straits in safety at earlier periods of the year; but it is open to consideration whether passenger vessels should take that route in the absence of *certain* information as to its freedom from ice; for without such information Masters must necessarily incur considerable risk. It was suggested that the Company should not in future leave the propriety of passing through the Straits to the discretion of Masters, by making such alteration in their regulations as should make it imperative in them to avoid it until after the 20th June.	
18. "**Baltic,**" S.S., *of Hull*, 631 Tons, DUNCAN BUCHANAN, *Master.*	Wrecked near the Dagö Ort Light, in the Island of Bornholm, on the 23d June 1861.	Inquiry ordered at Hull before Thomas Henry Travis, Esq., Stipendiary Magistrate, and Capt. Harris, H.C.S., Nautical Assessor.	The "*Baltic*" was a screw steamship built of iron. She left Hull on the 18th June, with a crew of 19 persons "all told," a general cargo, and 2 passengers. Some lofty and bulky machinery was stowed athwart ships, on the fore part of the quarter deck, which prevented the man at the wheel from seeing the head of the ship, and also preventing his being seen by the Officer on the bridge, from whom he received his orders. On the 22nd the "*Baltic*" was off Ostergarn Light, on the island of Bornholm, and which bore W.N.W., distant 5 miles. A course was then shaped for the Dagö Ort Light, N.E. $\frac{3}{4}$ E. The light was seen at midnight, being E. and by N., computed distance 30 miles. The course was continued until 1 A.M. of the 23rd, when it was changed to N.E. and by E. $\frac{1}{2}$ E. to carry the ship clear of the Neckman Ground. At this time Dagö Ort Light bore E., supposed distance 25 miles. At 1 A.M. the master went below, leaving the ship in charge of the Boatswain, having given him orders as to the course, which the latter states he implicitly followed. That course was N.E. by E. $\frac{1}{2}$ E. till 1.55, when the land was visible right ahead, and a pole with a broom upon it on the port bow, which was supposed to be a fisherman's buoy. When a little inside the pole, the Boatswain altered the course to N.E. by E., and 5 minutes afterwards he changed it again to N.E. $\frac{1}{2}$ N. to keep further off the land, in accordance with the orders he had previously received from the Captain, and on this course he kept the ship till 4 A.M., and then changed it to E. and by N., in conformity with the Captain's directions, as the Dagö Light then bore S.S.W. At 3.50 A.M. the Boatswain saw 2 poles, one with a white flag on it, and the other with a broom on it, both on the port bow. At from 5 to 7 minutes past 4 A.M., the Boatswain saw the white rocks under the bottom of the ship, and she immediately began to grate. Orders were given to stop and reverse the engines; but before the latter order could be obeyed the water rushed up, the stoke hole, and the fires were extinguished. The Captain then hurried on deck in his shirt, but it was found that the ship was hopelessly fast, and every preparation was made for saving life, and preserving the cargo. Providentially the weather was then, as it had been throughout, perfectly calm and fine, and no necessity arose for the abandonment of the ship till after nearly the whole of the cargo had been saved. It seems that on leaving Hull the Captain appointed an A.B. seaman, Boatswain, and gave him charge of a watch as Second Mate, and he subsequently relieved the only Mate throughout the voyage; thus, on the Saturday the Mate's watch was from 8 to 12 P.M., and he was then relieved by the Boatswain, who took charge of the ship from 12 to 4 A.M., *i.e.* during the period of the casualty. The above facts suggested two questions, first, whether the Captain was right when he supposed that he was 30 miles from Dagö Light, and secondly, whether the circumstances offered any justification for his leaving the vessel in charge of an uncertificated person, a "common seaman," when he must have known that he was approaching a very dangerous coast. With regard to the first point, it is to be observed that the chart by which the Captain navigated the vessel (one of Imray's of 1853, with corrections to 1857,) indicates that the radius of Dagö Light is 32 miles, whereas the Admiralty Charts and all the Russian authorities concur in stating that Dagö Light is only visible 21 miles in clear weather. This is mentioned as perhaps showing a ground for the Captain's placing his position at 30 miles from the Dagö Light, as it was stated when first seen to be just dipping on the horizon; but subsequent events showed that he could not have been so far from it, and led to the belief that the Admiralty Chart and the Russian authorities are the most to be relied on. But even supposing that the Captain had been 30 miles from the Dagö Light, the courses steered would, in the Court's opinion, have brought the vessel much nearer to Neckman's Ground than prudence would warrant, particularly as the whole Gulf of Finland was open to him. It will be noticed, moreover, that notwithstanding the indications of danger from the poles, &c., no soundings were ever	The Certificate of Competency of Duncan Buchanan, cancelled.

Name, &c. of Ship.	Case as first reported.	Steps taken by the Board of Trade.	Substance of Report after Investigation.	Final Result.
"Baltic," S.S. *of Hull, —continued.*			taken, an omission attributable to the ignorance of the person left in charge of the vessel. As to the second point, the Court was of opinion that there were no circumstances in this case that in the slightest degree justified the Captain in leaving the vessel under the charge of a "common seaman" in a well known dangerous vicinity; and the Court was further of opinion that, in so doing, he was guilty of a very grave "default," and therefore forwarded his Certificate to the Board of Trade. During the investigation the Court had occasion to observe that the course adopted by the Captain of appointing the Boatswain, Second Mate, was entirely at variance with the spirit of the Merchant Shipping Act, and if, as there is some reason to suppose, such evasions of the law are not infrequent, the greatest possible danger and risk may fairly be anticipated, unless some check should be opposed to a practice so much to be reprobated. The Court remarked that though no excuse could be found for the Master's conduct on this occasion (by which a very fine vessel had been lost in broad daylight and calm and beautiful weather, merely because a wholly incompetent person was permitted to direct her,) he had produced numerous proofs of his having hitherto borne a high character during a period of 27 years, which will no doubt have due weight with their Lordships.	
19. **"Emily,"** *of Cork,* 151 Tons, Official No. 27,343, TIMOTHY BEASE, *Master.* C.C.	Wrecked on the rocks near Bere Island, County of Cork, 5th October 1861.	Inquiry ordered before Edward Orme, Esq., Stipendiary Magistrate, Cork, and Captain Thomas Goss, Inspecting Commander of Coast Guard of the Queenstown Division, as Nautical Assessor.	The "*Emily*" proceeded from Cork on the 20th August on a voyage to Mirimichi, and had proceeded as far as lat. 47° 3′ N. and long. 36° 55′ W. when she encountered very bad weather and became leaky. The Master, deeming it impossible to proceed on the voyage, bore up for Cork, and on the 5th October made the Fastnet Rock, which bore E.S.E., distant 7 miles. Failing to weather it, bore up for Berehaven, rounded the Roan Carrig Light to the eastward at 11.30 P.M., passing between Roan Carrig Island, Ducala Rock, and another rock to the north of Roan Carrig and in close contiguity to it; a passage which a prudent seaman should not have chosen, that to the N.W. of the island, as recommended by the Sailing Directions, being a safe and direct course to the anchorage. After rounding Roan Carrig Light she was hauled up on port tack under single-reefed topsail and mainsail, and stood towards the land. On nearing the haven, the wind veered to the westward, which broke the ship off. As she refused to stay, and there was not room to wear, an anchor was let go, but this not holding she struck on the rocks. Attempts were made to get her off, which were not successful, and she became a wreck. From the evidence it appears that the only chart on board was on too small a scale to show the Master any of the difficulties he was approaching, and so old and obliterated as to render it impossible to distinguish the rocks in the vicinity of Roan Carrig. It appears also that the lead was stowed away in a locker below, and not used by the Master in approaching Berehaven, although the night was dark, and he was unacquainted with the locality. He also appeared to be ignorant of the safe anchorage he would have found in Crookhaven Harbour. Under these circumstances the Court was of opinion that the "*Emily*" was lost by default of the Master; but in consideration of the exhausted condition of himself and crew, from the continued bad weather, suggested that the Board of Trade should adopt a lenient course.	Certificate returned, with an admonition.
20. **"North Briton,"** S.S. *of Glasgow,* 1,488 Tons, Official No. 22,081, WILLIAM GRANGE, *Master.*	Wrecked on the Perroquet Rock, in the Gulf of St. Lawrence, on the 5th November 1861.	Inquiry ordered before T. S. Raffles, Esq., Stipendiary Magistrate, Liverpool, and Capt. Harris, Nautical Assessor.	The "*North Briton*" left Quebec on her homeward voyage on the 2d November, with 124 passengers and a general cargo. She grounded on going down the River St. Lawrence while in charge of a pilot, but passed off with the next tide apparently uninjured. At 3 P.M. of the 3rd she was off Cape de Monts, distant 3½ miles, and from thence took her departure, shaping her course East for the West Point of Anticosti. Continued on that course till 2 P.M. on the 4th, when, under the impression that she had entered the Canadian Channel, the course was altered to E.S.E. till 4 P.M., when land was seen on the beam, supposed to be in the vicinity of Thunder Point. A thick drizzling rain prevented accurate bearings from being taken, and a cast of the lead gave no bottom at 90 fathoms. This appeared to confirm the Master's suspicion that the land seen was near Thunder Point. The ship was then hauled off the land S.E. by S. to regain the fairway of the channel, the engines slowed to half speed, and soundings taken every half hour. At 7 P.M. the course was altered to S.E. by E. and continued until midnight, when the soundings giving 65 fathoms, the Master considered he was in the fairway of the channel, and gave orders to steer E.S.E. and to go on at full speed. Having been on deck since 4 A.M. he went below, directing the Second Mate, who came on watch at midnight, to stop the vessel and take a cast of the lead at 1 A.M., but which order, after consulting the chart, he deemed unnecessary, and countermanded. At 1.20 A.M. of the 5th, she struck on the Perroquet Rock. The Master appears to have displayed great vigilance and caution in the navigation of his vessel up to the time of his going below. Probably, if he had not countermanded the directions given to the Second Mate, a cast of the lead would have warned him of his	Captain Grange's Certificate of Competency as Master Extra returned to him with a severe admonition, it being considered that if he had continued the care and attention to the navigation of the ship that he had previously shown, until he had passed the most dangerous portion of the channel, which would have been the case after a run of about 30 miles, the casualty would not have happened; and that he erred in supposing when he last sounded that the depths proved him to be in mid-

			danger, and for this omission the Court pronounced him to be in default. From evidence given, it appears that on the 3rd November an unusually high tide prevailed in the St. Lawrence and over the whole seaboard of North America, and this undoubtedly had some effect upon the navigation of the vessel. The reason of the Master selecting the Canadian Channel rather than the longer but safer passage by Cape Race, appears to have been owing to a request made to him by his owners to look out for, and if necessary, render assistance to the steamer "*North American*," which it had been reported at Quebec was on shore at Nalashquan Point. These circumstances, with the other facts of the case, having been taken into consideration, the Court recommended to the Board of Trade that Captain Grange's certificate should be returned to him with an admonition.	channel, as in that portion of the channel the deep water extends within a short distance of the north shore.
21. "**British Flag,**" *of Liverpool*, 1,395 Tons, Official No. 24,100, HENRY WILSON CAMPBELL, *Master*. C.C.	Abandoned in lat. 44° 48′ N., long. 10° 32′ W. about 120 miles N.W. of Cape Finisterre, on the 14th Nov. 1861.	Inquiry ordered at Liverpool before T. S. Raffles, Esq., Stipendiary Magistrate, and Capt. Harris, Nautical Assessor.	The "*British Flag*," with a cargo of railway iron, machinery, &c. (about 1,200 or 1,260 tons) and one passenger, left Liverpool for Bombay on the 6th November, in all respects well found. On the morning of the 12th, the wind suddenly shifted from the southward to the northward and eastward. Being a fair wind, the yards were squared, and all possible sail made. At this time the ship began to roll violently, and efforts were made to steady her, but they were not successful, and about 1.20 A.M. of the 13th the foremast fell by the board, carrying with it the bowsprit, staving the long boat, and drawing the two foremost port channel bolts out of the ship's side. When the weather had become more moderate, the wreck was partly cleared, and an attempt was made to rig a jury mast, but the rolling of the ship from the heavy sea, and the lumbered state of the deck, rendered it impracticable. A vessel had previously passed and offered assistance, which was declined, Captain Campbell not thinking it necessary to accept it. During the night the wind blew very hard from the S.E., and the vessel surged violently. At 4 A.M. on the 14th, an unsuccessful attempt was made to reef mainsail prior to wearing round on starboard tack, and it was found necessary to set the whole mainsail to steady the ship. Shortly after daylight a brig was sighted, and as the ship continued rolling about in a helpless manner, the wind increasing, and the barometers indicating severe weather, the crew, who had previously manifested a desire to leave the ship, prevailed upon the Master to do so, and the brig having approached near, the crew of the "*British Flag*" abandoned her in two boats, and were received on board the brig, which, in consequence of bad weather, was compelled to lie to until 6 P.M. of the following day, when she proceeded on her voyage to Queenstown. Although the "*British Flag*," when she was abandoned, had but three feet of water in her, (an inconsiderable quantity in a ship of so large a size,) and the drawing of the channel bolts, &c. was not of much consequence, as they were above the water line, yet, from the otherwise disabled state of the vessel, the strong desire evinced by the crew to abandon her, the increasing wind, and the probability of bad weather; that the two principal boats had been rendered useless, and the remaining two insufficient to save all hands, if it had subsequently been found necessary to abandon the vessel, it was clear that the Master was placed in a very difficult position; and the Court, though not feeling satisfied that the ship would have been lost had the brig not appeared in sight and offered a certain mode of escape from a situation of difficulty and risk, considering the above circumstances, and the responsibility which must ever attach to a man in Captain Campbell's position, were unwilling to condemn him for abandoning the ship.	Read.
22. "**Lesmahagow,**" *of Scarborough*, 651 Tons, Official No. 25,429, WILLIAM ELMORES, *Master*.	Wrecked in St. Bride's Bay on the 29th Nov. 1861.	Inquiry ordered at Milford, before P. Phelps and Thomas Roberts, Esqrs., Justices of the Peace for the County of Pembroke, and Capt. Harris, Nautical Assessor.	The "*Lesmahagow*" sailed from Quebec for Liverpool on the 24th October, with a cargo of pine timber; made the Fastnet Light on the 27th November, and on the following day at 4 A.M. the Old Head of Kinsale, distant N.N.E. 8 miles; thence steered an easterly course until 7 P.M., when a light, stated to be Ballycotton, was observed, bearing N.E. by N. 8 miles distant. At 8 P.M. Minehead Light is also stated to have been seen, bearing N. about the same distance. From this position a course was steered E. by S. ½ S. to make the Tuskar. About half an hour after midnight a revolving light was seen on the port bow, bearing N.N.E., distant about 3 miles, which was assumed by the Master and Mate to be the Tuskar, but not without some misgiving, as the ship was hauled out S.E. by E. for three-quarters of an hour, an unnecessary precaution if they had been sure of its being that light. Sail was then made, and the wind being fair, the ship was kept N.E. ½ E. under the impression that she was proceeding up St. George's Channel. After keeping on this course for a short time, land was seen ahead, and immediately afterwards the vessel struck the ground in St. Bride's Bay, fifty miles to the eastward of where the Master supposed himself to be. If the Old Head of Kinsale Light was seen at 4 A.M. on the 28th November, it is impossible that the light seen at 7 P.M., fifteen hours later, could have been the Ballycotton Light, which is only 22 miles from the Old Head of Kinsale, the ship making about 7 miles an hour. It would therefore appear that the Master was wholly and inexcusably ignorant of his position, and that the light taken to be the Ballycotton Light, if seen at all, which is doubtful, as no reliance could be placed upon the trustworthiness or accuracy of the log book, was the Smalls Light, a light very dissimilar to either Ballycotton or Minehead. The Master was also guilty of a very grave omission in not at any time having recourse to his lead. The Court having considered the evidence, found that the "*Lesmahagow*" had been lost by default of the Master.	Certificate of Competency, No. 17,520, of William Elmores, suspended for 12 months.

SUMMARY OF PART III.

Showing the Result of the **FORMAL INVESTIGATIONS** into Wrecks and Casualties instituted under Part VIII. of the Merchant Shipping Act, 1854.

Year.	Number of Investigations.		Description of Certificates held by Masters and Mates.								Certificates restored on acquittal by		Certificates restored by the Board of Trade,				Total Number of Certificates restored after Inquiry by		Certificates cancelled or suspended by the Board of Trade.																Number of Pilots' Licenses revoked after Inquiry by	
			Certificates of Competency held by Officers whose Conduct was inquired into by		Certificates of Service held by Officers whose Conduct was inquired into by		Total Certificates held by Officers whose Conduct was inquired into by		Officers without Certificates whose Conduct was inquired into by				With a Reprimand or an Admonition after Inquiry by		In consequence of the improper constitution of the Court, or through defects in the Reports of		And the holders condemned in the Costs of Investigation.			Number cancelled by the Board of Trade after Inquiry by		Number suspended for										Total Number cancelled or suspended after Inquiry by			
																				1 Month		2 Months		3 Months		6 Months and under		9 Months and under		12 Months and under					
																			After Inquiry by																	
	By Local Marine Board.	By Magistrates or Justices and Nautical Assessor.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.	Local Marine Board.	Magistrates, &c.
1856	2	12	1	9	1	3	2	12	—	—	—	7	—	2	—	—	—	—	—	9	1	1	—	—	—	—	—	—	1	—	—	—	—	2	2	3	—	—
1857	7	17	3	15	3	5	7	19	1	—	1	5	1	7	1	—	—	—	3	12	—	2	—	—	—	1	2	—	1	3	—	—	1	1	4	7	—	—
1858	2	10	2	6	—	4	2	10	—	—	1	2	1	4	—	—	—	—	2	6	—	2	—	—	—	—	—	—	2	—	—	—	—	—	—	4	—	1
1859	6	19	4	13	2	7	6	20	—	1	1	5	1	3	2	1	—	1	4	10	1	4	1	—	—	—	—	1	—	1	—	1	—	3	2	10	1	—
1860	3	25	2	24	1	7	3	31	—	—	—	7	—	7	—	1	—	—	—	15	2	4	—	—	—	—	—	1	—	5	—	—	1	6	3	16	—	—
1861	3	19	2	18	2	4	4	22	—	—	1	5	—	6	—	—	2	—	3	11	1	3	—	—	—	—	—	1	—	1	—	1	—	5	1	11	—	—
Totals	23	102	14	85	9	30	24	114	1	1	4	31	3	29	3	2	2	1	12	63	5	16	1	—	—	1	2	3	2	12	—	2	2	17	12	51	1	1